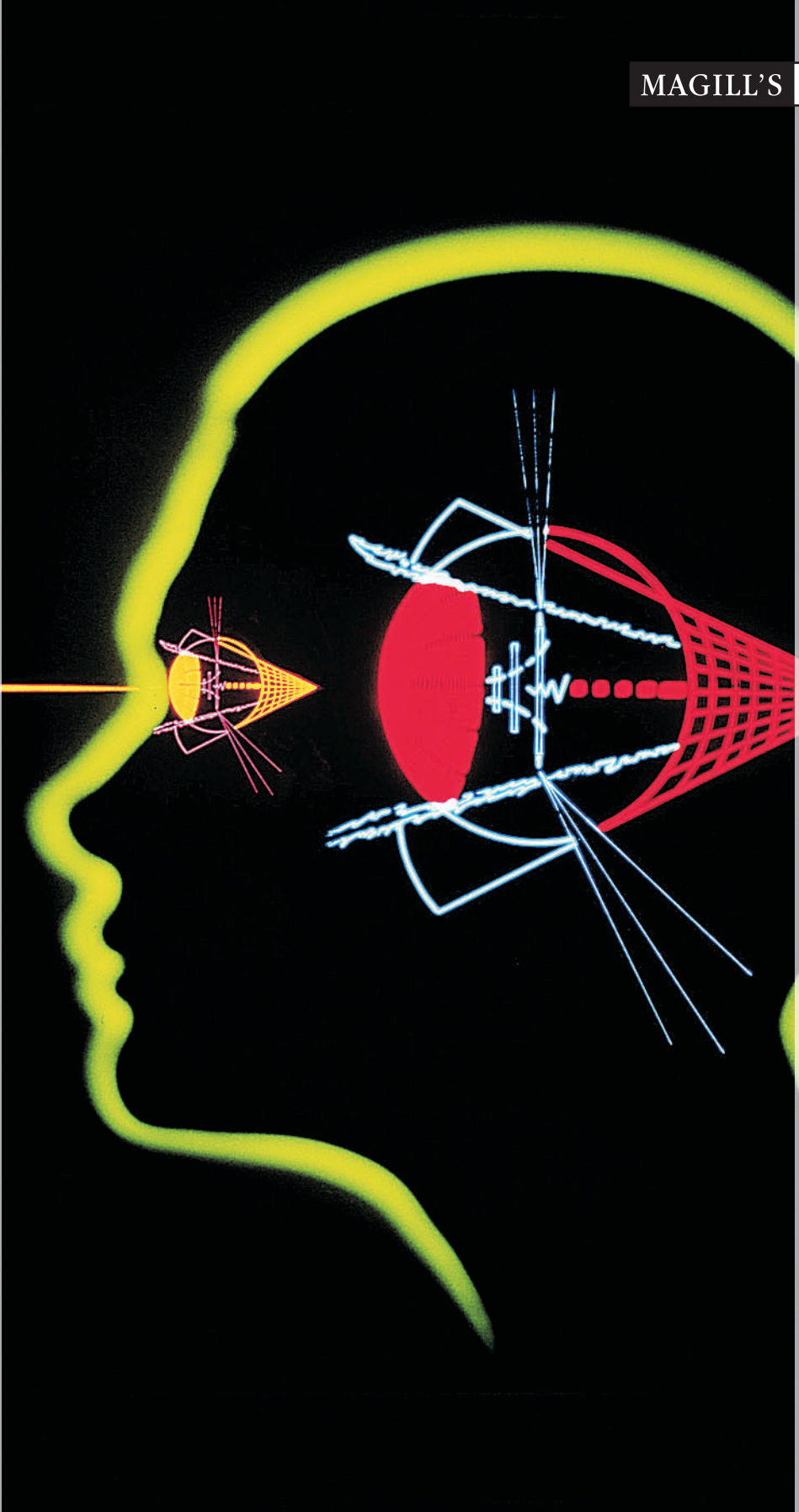
MAGILL'S CHOICE

Psychology and Mental Health



PSYCHOLOGY AND MENTAL HEALTH

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MAGILL'S CHOICE

Psychology and Mental Health

Volume I

Abnormality — Grief and Guilt

edited by
Jaclyn Rodriguez, Ph.D.
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SALEM PRESS, INC.
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Most of the essays in *Magill's Choice: Psychology and Mental Health* originally appeared in *Magill's Survey of Social Science: Psychology*, 1993, edited by Dr. Frank N. Magill and Jaclyn Rodriguez; some of them were updated for *Magill's Choice: Psychology Basics*, 1998. The remainder of the essays were taken from *Magill's Medical Guide: Revised Edition 1998*. All bibliographies have been updated, and some formats have been changed.

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Publisher's Note

From the earliest history, humans have sought explanations for seemingly abnormal thoughts and actions. Some behaviors were attributed to possession by gods or demons, others to an imbalance of theoretical "humors" in the body. It was not until modern times, with the advent of the science of psychology, that the influence of physical disease, genetic makeup, and emotional or psychological trauma on mental health has been identified. *Psychology and Mental Health* examines this field as it continues to unravel the origins of mental illness and psychological disorders and the means to prevent or alleviate their symptoms.

Of the 107 essays in this work, 83 first appeared in *Magill's Survey of Social Science: Psychology* (1993); 16 of them were updated and reprinted in *Psychology Basics* (1998). The other 24 essays were published in *Magill's Medical Guide, Revised Edition 1998*. All bibliographies have been updated with the latest editions and most recent scholarship in the field.

Many of the entries in *Psychology and Mental Health* consider psychopathologies. Some of these conditions can pose a serious threat to the safety and functionality of the patient, such as schizophrenia, Alzheimer's disease, anorexia nervosa, or autism. Other psychic-emotional and learning disorders have a lesser but still significant impact on a patient's mental health and emotional condition, such as depression, dyslexia, sibling rivalry, or sexual dysfunction. A number of entries discuss various treatment options, from electroconvulsive therapy and lobotomy to play therapy and psychoanalysis.

All entries begin with the standard information "Type of psychology" and "Fields of study." A brief definition of the topic follows. Next comes a list of "Principal terms" with concise definitions. Entries on mental illness or lesser psychological impairments have a section "Causes and Symptoms," which defines the condition and describes its origins and possible manifestations in patients, and a section "Treatment and Therapy," which explores the various treatments available to alleviate symptoms or effect a cure. More general entries feature the sections "Overview" and "Applications." The last section of all entries is "Perspective and Prospects," which places the topic in a larger context within psychology. For example, an entry on a psychopathology may cover the earliest known investigation into that condition, the evolution of its treatment over time, and promising areas of research for a greater understanding of its causes and cure. Every entry ends with a "Bibliography" of sources to consult for further study and a list of cross-references to related articles within *Psychology and Mental Health*. All essays are signed by the author.

At the end of volume 2 is a list of entries by category: abnormality, anxiety disorders, childhood and adolescent disorders, depression, developmental issues, diagnosis, emotional disorders, learning disorders, organic disorders, personality disorders, schizophrenias, sexual disorders, sleep disorders, stress, substance abuse, and treatment. A comprehensive subject Index of people and concepts concludes the volume.

The contributors to this work are academicians from psychology, medicine, and other disciplines in the life sciences; their names and affiliations are listed in the front matter to volume 1. We thank them for sharing their expertise with general readers. The charts of possible symptoms and signs that appear in some entries were taken from National Mental Health Association factsheet from 1996 and 1997.

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Psychology and Mental Health

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MAGILL'S CHOICE

PSYCHOLOGY AND MENTAL HEALTH

VOLUME II

Group Therapy — Type A Behavior Pattern

Index

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Abnormality

Type of psychology: Psychopathology
Fields of study: Models of abnormality

Abnormality means behavior, thinking processes, or feelings deemed undesirable and therefore subject to control or change. Differing points of view about theoretical orientation, tolerance for deviance, where to draw the line between normal and abnormal, and the use of labeling lead to differences in the criteria used for definitions. Important criteria include subjective discomfort, disability or inefficiency, and deviance, especially bizarre or reality-distorting deviance.

Principal terms

BEHAVIORAL VIEW: a perspective that emphasizes understanding a person in terms of his or her objectively measured behavior; normal, in this view, is functioning well

DEVIANCY: the quality of having a condition or engaging in behavior that is different from the typical in a social group and is considered undesirable

DISTORTIONS OF REALITY: beliefs that distort universally accepted assumptions such as those about time, space, cause and effect, or life and death; delusions

MEDICAL MODEL: a view in which abnormality consists of a number of diseases which originate in bodily functions, especially in the brain, and have defined symptoms, treatments, and outcomes

PHENOMENOLOGICAL VIEW: a perspective that emphasizes understanding a person from his or her own viewpoint; normal, in this view, is feeling satisfied with oneself

PSYCHODYNAMIC VIEW: a perspective that emphasizes understanding a person in terms of how he or she copes with unconscious feelings and conflicts; normal, in this view, is understanding and controlling the feelings and conflicts

STATISTICAL DEFINITION: a definition of abnormality as a condition that is different from the average or mean of the characteristic or trait

Overview

Abnormality is a term applied to behaviors, thinking processes, or feelings that are viewed by the individual and/or by society as undesirable and requiring control or change, and viewed as deficits which may or may not have a clear etiology but which should be compensated for by the individual and society. Psychologists or other mental health professionals are enlisted to test and/or interview individuals to determine whether a condition is abnormal, and to facilitate change or advise in delineating compensation. There are three typical standards, or criteria, that are used by mental health professionals to decide whether the condition is abnormal: discomfort, disability, and deviance.

The first two of these criteria have some similarity to the general indicators of a physical disease. Just as physical disease may be marked by pain, the major

symptom that brings most private patients to a psychotherapist is a chronic psychological pain or discomfort. Just as a physical impairment, such as a broken leg, usually leads to problems in daily living, so the second condition that defines abnormality is some sort of difficulty in functioning, a disability or impairment. Both discomfort and disability are often evaluated by one's personal standards. One is feeling discomfort because of problems one knows best oneself, or one is inefficient compared to what one expects of oneself.

The third major criterion for abnormality, deviance, is based not on personal standards but on the standards of society. Deviance is behavior that is undesirably different from social expectations; such behavior is most likely to be considered psychologically abnormal if it is unpredictable, bizarre, or dangerous.

Each of these three major criteria that collectively define psychological abnormality can range greatly in quality and degree, and each summarizes a large number of symptoms and conditions. Any deviancy or discomfort is more likely to be defined as abnormal if disability or impairment in function is present. The impairment can be judged based on the typical performance of others, or it can be judged based upon the individual's own potential or subjective expectation. The impairment may sometimes be based on a physical condition such as retardation or brain injury. Even if the condition itself cannot be changed, a psychologist can help determine the degree of the problem and help facilitate useful compensations.

Although one can catalog the suggested criteria for abnormality, there are broad theoretical disagreements about which of these criteria should be emphasized in practice. For example, there are phenomenologists who argue that problems do not exist unless they are perceived by the individual and reflected in personal distress. There are behaviorists who argue equally vehemently that only overt behavior should be treated. Such theoretical differences are a primary reason for differences in definitions.

A second core issue is the quantitative one, the question of how much deviance, bizarreness, inefficiency, or distress constitutes "abnormality." Many of those who use the medical model assume a dichotomy between those who have a specific mental disease and the vast majority of normals who are disease free. An alternative view is that the dimensions defining illness are continuous ones ranging from abnormality through mere adequacy to equally rare degrees of supernormality.

Defining categories of deviancy as "abnormal" presents the particularly thorny problem of the relativity of cultural standards. The actions society considers deviant seem limited to particular cultures at particular times. For example, in Victorian times, young women who had children out of wedlock were sometimes committed to hospitals for the "morally insane." Such deviant actions of one generation may later be ignored or even approved by society. A common solution to this dilemma is to distinguish deviancies requiring correction and treatment from others. Deviancies that are dangerous, harmful to others, or accompanied by personal distress are examples of the former.

A final issue pertains to the value placed on the defining process itself. According to the medical model, the definition of abnormality is all-important, central to understanding the cause of the disease and to planning treatment. Any disease

should be diagnosed as soon as possible. A sharply contrasting view, held by some sociologists, is that defining, or labeling, has mostly harmful effects. Not only does labeling a person as abnormal relegate him or her to the stigma of being undesirably different, but the label itself creates a self-fulfilling prophecy as others pay particular attention to symptoms of the person's deviancy. The process is also challenged because it focuses on symptoms of the individual that may really result from difficulties in the family, the community, or even the society.

Applications

Each criterion for abnormality referred to above can be applied to many varieties of abnormality, differing in quality and degree. One important feeling of discomfort is sadness, which is called "depression" when it is considered abnormal. Another typical feeling of discomfort is anxiety: a chronic, vague, fearlike feeling of impending doom. When depression or anxiety is chronic, intense, and interferes with functioning, it is much more likely to be considered abnormal than when it is the temporary or mild feeling everyone has from time to time. These feelings are also much more likely to be considered abnormal if there is no real-life stress or crisis to explain them.

Another major criterion of abnormality is deviance, characterized by a condition or behavior that is undesirably different from that of the significant cultural group. This is not necessarily the same as being statistically different from the average of the group, as one can be statistically different in unimportant or even desirable ways. (Wolfgang Amadeus Mozart and Albert Einstein were statistically different from the average.) Rather, deviance is always different in some significant way and is undesirable.

To classify conditions as psychologically abnormal simply because they are deviant is an expansive use of the concept of abnormality that is highly controversial. There are, nevertheless, particular types of deviants that are practically always thought of as abnormal, particularly those that seem bizarre.

The key discriminator, bizarreness, involves behavior, thoughts, or feelings that do not seem consistent with any recognized social role. The deviant individual may distort reality in that he holds beliefs that violate universal assumptions about time, space, selfhood, and cause and effect. Belief in bizarre plots, seeing things that are not there, or hearing imaginary voices are all examples of such distortions. It should be pointed out that this sort of behavior seems to be accepted as abnormal in practically every known culture, although some cultures have valued such bizarreness as religious experiences.

Definitional questions are involved whenever a psychologist considers the question of whether a patient is suitable for treatment and, if so, what sorts of treatment are appropriate. Typical cases sometimes involve the referral of a case that fits only one of the criteria above. A successful lawyer, married and with an attractive family, sees his career as one of only playing silly games. Adequate and conforming, he is abnormal only by the standard of subjective discomfort. A student promoted to the fourth grade seems conscientious and hardworking, but cannot seem to do much more than first-grade work. A psychologist finds that she

tests within the retarded range of intelligence. Her problem is an impairment in functioning. A youth who has wounded an owner of a jewelry store during a robbery is interviewed by a psychologist in a detention center. He explains that he did not do anything wrong, really, because the store owner could have simply collected from his insurance company and should have minded his own business. This young man, who can easily rationalize almost any behavior, feels good about himself. He is abnormal in the sense of being deviant and dangerous.

Psychodynamic or phenomenologically oriented psychologists would consider the first patient ideal; behavioral psychologists might help the second develop useful compensations. The approach to the deviant would be largely a matter of external controls.

Most cases seen by psychologists would be abnormal by more than a single criterion. A young man who cannot start the day without a couple of shots of vodka begins developing family problems and staying away from work. He both is a deviant (alcoholic) and shows an impairment in functioning. A woman in a deep depression considers herself worthless and feels she is guilty of unforgivable sins. She also moves very slowly and has stopped eating. She experiences discomfort, shows impairment, and her feelings of guilt seem to distort reality. A middle-aged accountant becomes preoccupied with the fact that he feels estranged from his wife. He thinks so much about this that his performance ratings drop. Like most of the milder cases seen by mental health professionals, subjective discomfort here results in an impairment in efficiency.

Many symptoms that could be diagnosed from a psychiatric manual may not really be considered significant or abnormal if they do not interfere with the individual's functioning. A phobia concerning flying would not be significant for those who never travel; such a phobia might be highly significant for someone who has to travel in work.

Definitional questions are also involved in collective decisions of the American Psychiatric Association (APA) when they revise their *Diagnostic and Statistical Manual of Mental Disorders* (DSM), first published in 1952. At each revision, new syndromes are proposed and borderline ones discussed. As the third edition was being prepared, homosexuality became the focus of a major controversy. Some psychodynamically oriented psychiatrists argued that homosexuality involves an impairment in mature sexual functioning, and so is inherently abnormal. The argument that homosexuals function adequately and sometimes extremely well in important areas of life and that any discomfort is largely the result of discrimination, however, prevailed. Homosexuality was removed from the DSM-III (1980) as a mental disorder.

Perspective and Prospects

Modern mental health professionals deal with an enormously varied assortment of problems. Definitions of abnormality offer a guideline as to what conditions should be treated in whom. In contrast, the pioneers of the mental health professions served limited groups of dramatically different populations in different settings.

One such limited group was the hospitalized psychotic population on which the

medically oriented Emil Kraepelin, about 1900, commenced his work of classifying the behavior of patients. He hypothesized discrete diseases, each of which presumably had a specific course, outcome, and cause within the brain. Advocates of the medical model still hold that real abnormalities are brain conditions. Even in cases of such real brain impairment, it is usually behavior that reveals the abnormality.

Sigmund Freud, a pioneer of psychodynamic theory and a contemporary of Kraepelin, saw ambulatory middle-class patients who were suffering from anxiety and irrational rigidity in their behavior. Freud identified the causes as impulsive desires with various defensive strategies to keep these from awareness. The defining symptoms that brought the patients to Freud, however, were the anxiety (subjective discomfort) and the rigid, defensive behavior (impairment).

Around the middle of the twentieth century, phenomenologist Carl Rogers identified the basic problem of many of his bright young college students as a lack of self-esteem. This was caused, he believed, by the client's adopting of the artificial, unrealistic standards of others. Rogers paid attention to the client's subjective comfort, or inner attitude toward self. To the phenomenologist, a person, however deviant, who knows and likes himself, is normal. Rogers, like Freud, had faith in insight into oneself and the world "as it really is" as the key to normality.

About the same time in mid-century, the behavioral psychology of B. F. Skinner developed in the animal laboratory, and was applied to the treatment of humans. To Skinner, abnormality consisted of adjustive behavior that had not been learned (impairment) and maladjustive behavior that had been learned (deviance). Inner torment was not, to the behaviorist, a problem.

Definitions of abnormality allowed the practitioner to know the conditions appropriate for treatment and clarified the differences among practitioners. In the late twentieth century, criticism from several sources has led to a fine-tuning of these definitions. The tendency to extend the illness model to many conditions when there is no hard evidence of brain pathology and to assert medical control over these conditions was challenged by Thomas Szasz. Sociologists pointed out the negative effects of labeling as well as the relevance of family and community to problems that are defined by psychologists as individual abnormality. In contrast to widely held assumptions, research by Shelley Taylor and associates suggested that the most robust, altruistic people were not the most "realistic" and open to experience, but were rather biased toward a belief in their own good traits and good fortunes. Research and new technology in the field of medical psychology has led to an understanding of genetic or physiological components in conditions previously known only by behavior.

The mental health professions have begun to absorb this research and technology to extend an understanding of abnormalities outward to the community and inward toward underlying genetic or brain pathology. Criteria for the conditions which they define within the domain of psychology will remain the same: discomfort, disability, and deviance.

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Thomas E. DeWolfe

See also:

Abnormality: Behavioral Models; Abnormality: Biomedical Models; Abnormality: Cognitive Models; Abnormality: Family Models; Abnormality: Humanistic-Existential Models; Abnormality: Legal Models; Abnormality: Psychodynamic Models; Abnormality: Sociocultural Models.

ABNORMALITY
Behavioral Models

Type of psychology: Psychopathology
Fields of study: Behavioral and cognitive models; models of abnormality

Behavioral models of abnormal behavior use principles of learning to explain how maladaptive behaviors develop. Learning-based explanations have proved useful for both conceptualizing the development of abnormality and developing effective treatments for abnormal behaviors.

Principal terms

ABNORMALITY: a pattern of behavior that is maladaptive for the individual or society

BEHAVIOR THERAPIES: treatment approaches for abnormal behavior that are derived from principles of learning

CLASSICAL CONDITIONING: a learning principle used to explain how emotional and physiological responses can be learned

EXTINCTION: a process by means of which the probability of a behavior occurring is decreased; applies to both classical and operant conditioning and involves the unlearning of a response

OPERANT CONDITIONING: a learning principle used to explain how voluntary behavior can be learned; states that behavior is a function of its consequences

STIMULUS GENERALIZATION: the ability of stimuli that are similar to other stimuli to elicit a response that was previously elicited only by the first stimuli

Overview

The behavioral model asserts that normal as well as abnormal behaviors are acquired through learning. Unlike biomedical or psychodynamic models, which view abnormal behavior as symptoms of underlying pathology (biochemical disturbance and psychological conflicts, respectively), the behavioral model does not postulate underlying causes.

Behavioral explanations state that behavior is determined by the environment. Genetically or biologically determined variations in abilities are accepted. Apart from this, however, the behavioral model asserts that specific behavioral characteristics are acquired through learning experiences. Therefore, the same individual has the potential to develop numerous different characteristics. For example, the factors that determine whether one will become a criminal or a priest are the learning experiences one has.

Behavioral models of abnormal behavior have emerged from two basic learning processes: classical conditioning and operant conditioning. Classical conditioning is typically used to explain how emotional and physiological responses can be brought under the control of cues in the environment. For example, the emotional

(for example, fear) and physiological (for example, increased heart rate) responses elicited by the presentation of a dog to an individual with cynophobia (an extreme, unrealistic fear of dogs) can be explained by classical conditioning. "Voluntary" behaviors, however, such as running away when a dog is seen, can be explained by operant conditioning.

The classical conditioning model states that by pairing a neutral stimulus with a stimulus that produces an unlearned emotional or physiological response (called the unconditioned response), the neutral stimulus (now called the conditioned stimulus) can take on properties that allow it to elicit a response (called the conditioned response) that is similar to the unconditioned response. Stimulus generalization is said to occur when stimuli that are similar to the conditioned stimulus take on the ability to elicit a conditioned response. Principles derived from the study of classical conditioning have led to the development of useful conceptualizations of fear-based abnormal behaviors.

Whereas the classical conditioning model has been useful in demonstrating how "nonvoluntary" (emotional and physiological) reactions can be learned, principles of operant conditioning have been useful in explaining goal-directed, "voluntary" behaviors. The basic assumption of the operant conditioning model is that behaviors are controlled by their consequences. Positive reinforcers are consequences that, when presented following the performance of a target behavior, result in the increased occurrence of that target behavior in the future. Negative reinforcers are consequences that allow the escape from aversive situations and result in an increase in avoidance and escape behaviors in the future. Punishers are consequences that result in the decreased occurrence of the punished behavior in the future. The operant conditioning model views the consequences of behaviors as responsible for shaping behavior, both normal and abnormal.

Behavioral explanations have been presented to explain nearly all classes of abnormal behaviors. The usefulness of this model in accounting for the etiology of the vast range of abnormal behaviors is, however, varied. Behavioral explanations have been most useful in accounting for maladaptive behaviors characterized by relatively discrete, overt responses that are considered abnormal because of their excessive, deficient, or inappropriate expression. Examples include phobias, psychophysiological disorders (abnormal physical responses not caused by physical pathology), paraphilias (abnormal sexual arousal toward nonhuman objects), and conduct disturbances (such as oppositional or delinquent behaviors). Empirical evidence exists that demonstrates the process of learning and unlearning these abnormal responses.

Abnormal behaviors that are characterized by abnormal covert processes, such as disturbances in attention, perception, thought, and emotion, do not lend themselves to behavioral explanations. For example, schizophrenia is an abnormal behavior characterized by the presence of bizarre behavior, unrealistic thoughts, auditory or visual hallucinations, and inappropriate emotional expressions. The biomedical model, which postulates underlying brain pathology, provides a more useful general explanation for the development of schizophrenia than that provided by the behavioral model.

Although the behavioral model is not useful as a general explanation for the development of some disorders, it is helpful in explaining individual differences in overt behavior across all types of abnormality. Despite the likely contribution of biological factors in the formation of some classes of abnormal behavior, environmental-learning factors also continue to be influential. Principles of classical and operant conditioning are just as responsible for shaping the behaviors of schizophrenics as they are for shaping the behaviors of everyone else. Although the environment affects persons differently (partly as a result of biological differences between individuals), it does not cease to control behavior. Thus, in many cases behavioral models offer good general explanations for abnormal behaviors, while in other cases behavioral explanations must be combined with other models to produce useful explanations.

Applications

The behavioral model of abnormal behavior has probably been credited most with providing a useful explanation for the development of phobias. A phobia is defined as a strong, persistent fear that is out of proportion to any real threat that may be present.

To explain the development of phobias, the behavioral model uses both classical and operant conditioning principles. Take, for example, the development of cynophobia. According to the classical conditioning model, the presence of a dog becomes associated with an extremely frightening situation. One such experience may be enough to cause the dog to become a conditioned stimulus for a fear reaction. A child who has never touched a dog before and who has the unfortunate experience of attempting to pet a dog that barks ferociously may develop cynophobia. The dog's ferocious bark represents the unconditioned stimulus that, without prior learning, elicits a fear response (the unconditioned response). The dog (conditioned stimulus) is the primary neutral stimulus that becomes associated with the frightening situation. The next time the child sees the same dog, he or she may respond with extreme fear even if the dog does not bark ferociously.

The principle of stimulus generalization accounts for the observation that the child has developed a phobia not only for the ferocious dog that initially frightened the child but also for all dogs and perhaps even other furry creatures such as cats and squirrels. This explanation of the development of phobias has received much empirical support. On average, 60 percent of phobic individuals can recall a traumatic event that precipitated the development of their phobia.

The second aspect of phobias that any model must explain is the fact that they tend to be persistent. The classical conditioning model predicts that the phobic response should extinguish (gradually weaken) after a few trials of facing the dog (conditioned stimulus) in the absence of ferocious barking (unconditioned stimulus). In order to explain the absence of extinction (or persistence of the phobia), the principle of negative reinforcement is used.

The principle of negative reinforcement states that any behavior that is immediately followed by escape from or avoidance of an aversive consequence will be strengthened. Phobias are persistent because individuals actively avoid or escape

from situations in which the phobic object is present. The fear reduction that escape and avoidance behaviors produce results in these behaviors being strengthened in the future. Therefore, extinction trials are not given an opportunity to take place.

Behavioral therapies for phobias are also derived from learning principles. The most common therapies involve procedures that are designed to make the phobic individual face the feared object in the absence of any real danger so that extinction can take place. One procedure, which is called modeling, involves having the phobic individual observe another person (the model) performing the feared tasks. In the case of a cynophobic, the model would pet the dog in the presence of the phobic individual. As that individual becomes less frightened, he or she approaches the dog until eventually he or she is able to interact with the dog without being overwhelmed by fear.

The behavioral model has also been useful in explaining disorders of conduct, such as juvenile delinquency. Most treatment programs for conduct disorders are based upon behavioral principles. These programs provide delinquent youths with structured environments that are designed in such a way that prosocial behaviors are reinforced and antisocial or delinquent behaviors are punished. These programs have demonstrated that, by systematically controlling the consequences for prosocial as well as problem behaviors, delinquent behaviors can be controlled. Unfortunately, when the child is returned home, the old behavior-consequence contingencies may still be present, and as a result, the old behavior patterns will return.

Behavioral models have been used in combination with other models to explain the etiology of some abnormal behaviors. For example, autism, a disorder that is first expressed in childhood, is characterized by disturbed language development, a lack of interpersonal responsiveness, odd and repetitive behaviors, and resistance to changes in the environment. Although little is known about the specific etiology of this disorder, the most promising model currently is the biomedical model. This model accounts for autism by referring to disturbed neurological functioning. The behavioral model has been useful in demonstrating that, despite the presence of an apparent neurological disturbance, principles of learning also apply to these individuals. The most effective treatments for autism have been based upon principles of classical and operant conditioning. For example, language skills and appropriate social behaviors have been effectively taught by systematically using such operant-conditioning principles as positive and negative reinforcement.

Perspective and Prospects

Behavioral models of abnormality began to gain a following in the academic arena in the 1920's, after John B. Watson, commonly considered the founder of behaviorism, published a series of works on that subject. Watson argued that the focus of a scientific psychology should be overt behavior. He rejected the study of mental entities such as thoughts as useless, because such entities cannot be measured objectively and reliably. Watson proposed a model for understanding behavior that was based upon Ivan Pavlov's principles of classical conditioning. During the same decade, Pavlov published reports on what he called "experimental neurosis." In these reports, Pavlov explained how "neurotic" or abnormal behavior could be

taught to dogs by using the principles of conditioning.

Two psychologists, John Dollard and Neal Miller, published a book entitled *Personality and Psychotherapy: An Analysis in Terms of Learning, Thinking, and Culture* (1950), which used principles of conditioning to explain how abnormal behavior develops and how it can be changed. This book was important in expanding the behavioral influence outside academic circles and into the applied areas of case conceptualization and treatment. At the same time that behaviorism was becoming a powerful force among academic psychologists, clinical psychologists, who were in great demand, began to provide treatment for disturbed individuals. The role of treatment provider had previously been restricted to psychiatrists. The influx of psychologists into treatment was followed by an increased influence of behavioral psychology on conceptualizing and treating abnormal behavior. In the 1950's, new treatment approaches based upon learning theories began to multiply. These treatments are referred to collectively as "behavior therapies."

Behavioral models of abnormality provide useful explanations for the etiology and treatment of numerous types of abnormal behaviors. The experimental methodology from which behaviorism has developed has also influenced other models of abnormality. This has been seen, for example, in the increased interest among psychoanalytic theorists in developing empirical tests to evaluate their theories.

Behavioral models will continue to be developed and evaluated. It is likely that interdisciplinary models will become more common in the future. For example, behavioral models have recently been combined with models from developmental psychology. Developmental psychologists study the psychological development of normal individuals across the life span. Knowledge gained from developmental psychology about the abilities and characteristics of children at different ages has been helpful in refining behavioral therapies for children. This trend shows promise for the development of more effective treatment interventions for children and adolescents.

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Mark A. Williams

See also:

Abnormality; Agoraphobia and Panic Disorders; Anxiety Disorders; Aversion, Implosion, and Systematic Desensitization Therapies; Behavioral Assessment and Personality Rating Scales; Behavioral Family Therapy; Operant Conditioning Therapies; Phobias.

ABNORMALITY
Biomedical Models

Type of psychology: Psychopathology
Fields of study: Models of abnormality; organic disorders

Biomedical models of abnormality examine the roles of medical, neurological, and biochemical factors in creating psychological disturbances. Psychologists have come to realize that many disturbances have a significant biomedical component or are, in some cases, primarily organic. This had led to the development of more effective biomedical therapies, such as drug therapies, for these disorders.

Principal terms

ANTIDEPRESSANT DRUGS: drugs such as iproniazid, imipramine, and amitriptyline that are used to treat depression

ANTIPSYCHOTIC DRUGS: drugs such as chlorpromazine and clozapine that alleviate the symptoms of schizophrenia; also called neuroleptics

BIOGENIC AMINES: a class of neurotransmitter chemicals in the brain, including dopamine, norepinephrine, and serotonin

DIFFERENTIAL DIAGNOSIS: distinguishing between two or more illnesses that have the same or very similar symptoms

LIMBIC SYSTEM: a system of structures in the brain that regulates emotional responsiveness and plays a role in learning and memory

NEUROTRANSMITTER: a chemical that is secreted from one nerve cell and stimulates receptors on another nerve cell, thus transmitting a message between them

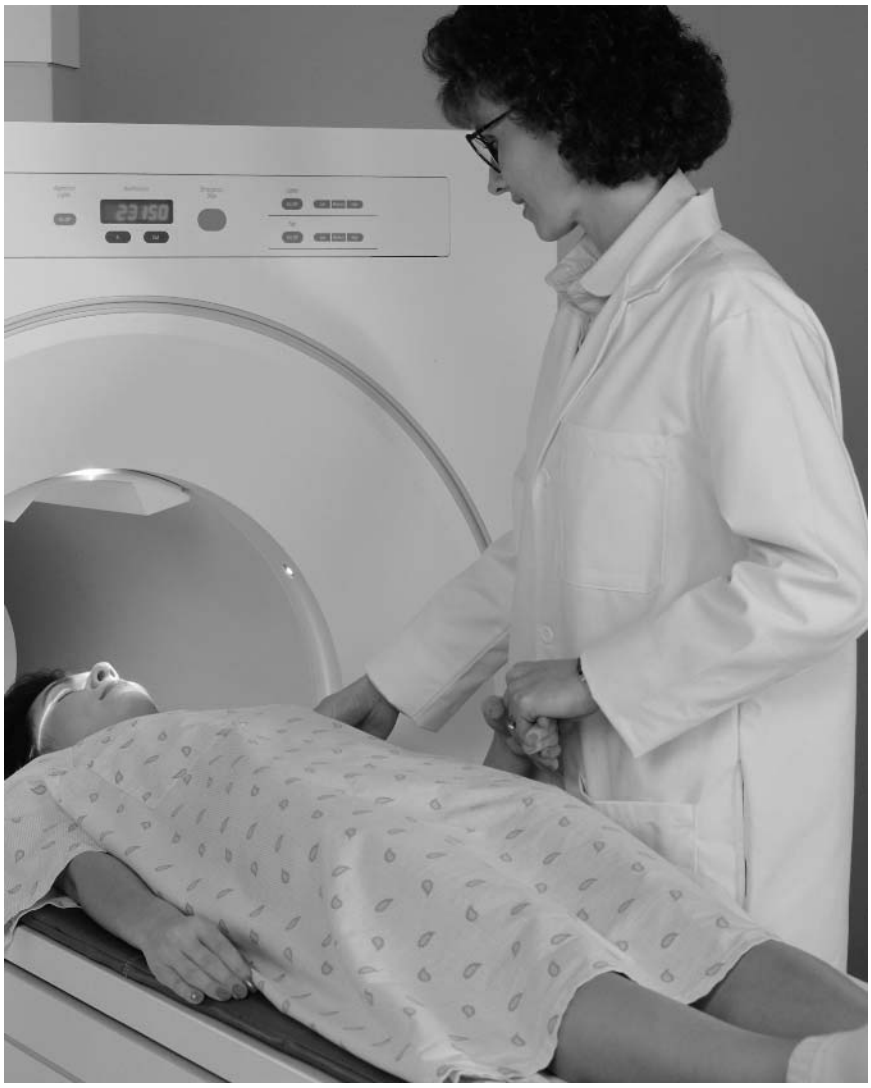
PRIMARY DISORDER: the principal disorder, not the result of some other medical condition, as opposed to a secondary disorder, in which the disorder and its symptoms result from some other medical condition

TRANQUILIZERS: drugs such as Librium and Valium that are used to treat anxiety disorders; also called antianxiety drugs or anxiolytics

Overview

The study of biomedical bases for mental illnesses and their treatment is called biological psychiatry or biopsychiatry. A basic premise of biopsychiatry is that psychiatric symptoms occur in many conditions—some psychological and some medical.

Inherent in this viewpoint is a new outlook on mental illness. Faced with a patient who is lethargic, has lost his or her appetite, cannot sleep normally, and feels sad, traditional psychotherapists may diagnose him or her as suffering from one of the depressive disorders. Usually, the bias is that this illness is psychological in origin and calls for treatment with psychotherapy. Biopsychiatrists, however, see depression not as a diagnosis, but as a description of the patient's condition. The task of diagnosing—of finding the underlying illness—remains to be done.



A computed tomography (CT) scan is recommended to rule out possible organic causes of psychiatric distress. (Digital Stock)

After examining the patient and doing a battery of medical tests, the biopsychiatrist, too, may conclude that the condition is a primary mood disorder. Further tests may reveal whether it is caused by life stresses, in which case psychotherapy is called for, or by biochemical imbalances in the brain, in which case drug therapy—perhaps in concert with psychotherapy—is called for. The medical tests may indicate that the depression is secondary to a medical condition—such as Addison's disease or cancer of the pancreas—in which case medical treatment of the primary condition is called for.

An important distinction must be made between psychiatric conditions resulting from the psychological stress of having a serious illness and psychiatric conditions resulting from chemical imbalances or endocrine disturbances produced by the illness. For example, the knowledge that one has pancreatic cancer can certainly lead to depression. This is a primary mood disorder that can be treated with psychotherapy. According to Mark Gold, a leading biopsychiatrist, however, depression occurs secondarily to pancreatic cancer in up to three-quarters of patients who have the disease and may precede physical symptoms by many years. In such a case, psychotherapy not only would be pointless but also would actually put the patient's life at risk if it delayed diagnosis of the underlying cancer.

According to Gold, there are at least seventy-five medical diseases that can produce psychiatric symptoms. Among these are endocrine disorders, including diseases of the thyroid, adrenal, and parathyroid glands; disorders of the blood and cardiovascular system; infectious diseases, such as hepatitis and syphilis; vitamin-deficiency diseases caused by niacin and folic acid deficiencies; temporal-lobe and psychomotor epilepsies; drug abuse and side effects of prescription drugs; head injury; brain tumors and other cancers; neurodegenerative diseases such as Alzheimer's, Huntington's, and Parkinson's diseases; multiple sclerosis; stroke; poisoning by toxic chemicals, such as metals or insecticides; respiratory disorders; and mineral imbalances.

After medical illnesses are ruled out, the psychiatric symptoms can be attributed to a primary psychological disorder. This is not to say that biomedical factors are unimportant. Compelling evidence indicates that the more severe psychotic disorders are caused by biochemical imbalances in the brain.

The evidence of genetic predispositions for schizophrenia, major depressive disorder, and manic-depressive disorder is strong. The function of genes is to regulate biochemical activity within cells, which implies that these disorders are caused by biochemical abnormalities.

Research suggests that schizophrenia, in most cases, results from an abnormality in the dopamine neurotransmitter system in the brain. All drugs that effectively treat schizophrenia block the action of dopamine, and the more powerfully they do so, the more effective they are therapeutically. Furthermore, overdoses of drugs, such as amphetamines, that strongly stimulate the dopamine system often cause a schizophrenialike psychosis. Finally, studies show that, in certain areas of the brain in schizophrenic patients, tissues are abnormally sensitive to dopamine.

In major depressive disorders, the biogenic amine theory is strongly supported. Biogenic amines, among which are dopamine, norepinephrine, and serotonin, are neurotransmitters in the brain that are concentrated in the limbic system, which regulates emotional responses. Biogenic amines were originally implicated by the observation that drugs that deplete them in the brain, such as reserpine, frequently cause depression, whereas drugs that stimulate them, such as amphetamines, cause euphoria. Studies of cerebrospinal fluid have revealed abnormalities in the biochemical activity of these amines in some depressed patients. In many suicidally depressed patients, for example, serotonin activity in the brain is unusually low. In other depressed patients, norepinephrine or dopamine activity is deficient. These

patients often respond well to antidepressant medications, which increase the activity of the biogenic amine neurotransmitter systems.

Less severe neurotic, emotional disturbances may also have biochemical explanations in some patients. Research suggests that mild or moderate depressions often result from learned helplessness, a condition in which the person has learned that his or her behavior is ineffective in controlling reinforcing or punishing consequences. Experiments show that this produces depletion of norepinephrine in the brain, as do other psychological stressors that cause depression. These patients also are sometimes helped by antidepressant drugs.

Finally, many anxiety disorders may result from biochemical imbalances in the brain. Drugs that alleviate anxiety, such as Librium (chlordiazepoxide) and Valium (diazepam), have powerful effects on a brain neurotransmitter called gamma aminobutyric acid (GABA), as do other tranquilizers, such as alcohol and barbiturates. GABA is an inhibitory neurotransmitter that acts to keep brain activity from running away with itself, so to speak. When GABA is prevented from acting, the result is agitation, seizures, and death. Positron emission tomography (PET) scans of the brains of people suffering from panic attacks show that they have abnormally high activity in a part of the limbic system called the parahippocampal gyrus, an effect that might be caused by a GABA deficiency there.

Applications

Understanding the biomedical factors that cause illnesses with psychiatric symptoms leads directly to improved diagnoses and subsequent patient care. Numerous studies have shown that psychiatric disorders are misdiagnosed between 25 percent and 50 percent of the time, the most persistent bias being toward diagnosing medical problems as psychological illnesses. A study published in 1981 by Richard Hall and colleagues found that, of one hundred psychiatric patients admitted consecutively to a state hospital, eighty had a physical illness that required medical treatment but had not been diagnosed in preadmission screening. In twenty-eight of these patients, proper medical treatment resulted in rapid and dramatic clearing of their psychiatric symptoms. In another eighteen patients, medical treatment resulted in substantial improvement of their psychiatric conditions. In an earlier study, Hall and colleagues found that 10 percent of psychiatric outpatients—those whose conditions were not severe enough to require hospitalization—had medical disorders that caused or contributed to their psychiatric illnesses.

Psychiatric symptoms are often among the earliest warning signs of dangerous, even life-threatening, medical illnesses. Thus, proper physical evaluation and differential diagnosis, especially of patients with psychiatric symptoms not obviously of psychological origin, are critical. In other cases, psychiatric illnesses result from biochemical imbalances in the brain. In any case, patients and therapists alike must be wary of uncritically accepting after-the-fact psychological explanations. A psychological bias can all too easily become a self-fulfilling prophecy, to the detriment of the patient's health and well-being.

Hall and colleagues found that a medical workup consisting of psychiatric and physical examinations, complete blood-chemistry analysis, urinalysis and urine

drug screening, electrocardiography (ECG or EKG), and electroencephalography (EEG) successfully identified more than 90 percent of the medical illnesses present in their sample of one hundred psychiatric patients. The authors recommend that such a workup be done routinely for all patients admitted to psychiatric hospitals.

E. Fuller Torrey makes similar recommendations for patients admitted to psychiatric hospitals because of schizophrenia. He recommends that a thorough examination include a careful and complete medical history and mental-status examination, with assistance from family members and friends if necessary. Physical and neurological examinations are also recommended. A blood count, blood-chemical screen, and urinalysis should be done to reveal conditions such as anemia, metal poisoning, endocrine or metabolic imbalances, syphilis, and drug abuse. A computed tomography (CT) scan may be necessary to clarify suspicions of brain abnormalities. Some doctors recommend that a CT scan be done routinely to detect conditions such as brain tumors, neurodegenerative diseases, subdural hematomas (bleeding into the brain resulting from head injuries), viral encephalitis, and other conditions that might be missed upon initial neurological screening. Torrey also recommends a routine examination of cerebrospinal fluid obtained by lumbar puncture, which can reveal viral infections, brain injury, and biochemical abnormalities in the brain, and a routine electroencephalogram, which can reveal abnormal electrical activity in the brain caused by infections, inflammations, head injury, or epilepsy.

If any medical disorder is discovered, it should be treated appropriately. If this does not result in clearing the psychiatric symptoms, Torrey recommends that antipsychotic medications be given. If the initial drug trial is unsuccessful, then the dosage may have to be adjusted or another drug tried, since a patient's response to medication can be quite idiosyncratic. About 5 percent of patients react adversely to medication, in which case it may have to be discontinued.

Mark Gold makes parallel recommendations for patients with depressive and anxiety disorders. In patients who have depressive symptoms, tests for thyroid function are particularly important. Perhaps 10 to 15 percent of depressed patients test positive for thyroid disorder. Hypothyroidism, especially before the disease is fully developed, may present only psychiatric, particularly depressive, symptoms. Hyperthyroidism may be indicated by depression, mania, or psychosis. Blood and urine screens for drug abuse are also indicated for patients with depression.

Patients who are found to have a primary mood disorder may be candidates for antidepressant drug therapy. Since responses to these medications are highly idiosyncratic, careful monitoring of patients is required. Blood tests can determine whether the drug has reached an ideally effective concentration in the body.

In some cases, even biological depressions can be treated without drugs. Seasonal affective disorder (SAD), also called winter depression, may be treated with exposure to full-spectrum lights that mimic sunlight, a process called phototherapy. Studies suggest that this alters activity in the pineal gland, which secretes melatonin, a hormone that has mood-altering effects. Similarly, some depressions may result from biological rhythms that are out of synchronization. Exposure to lights is often helpful in such cases, as is sleep deprivation.

In anxious patients, tests for endocrine function, especially hyperthyroidism, are called for, as are tests of the cardiovascular system and tests for drug abuse. In patients in whom no primary medical disorder is identified, the use of antianxiety medications may be indicated. Patients on medication should be closely monitored. Psychotherapy, such as behavior therapy for avoidant behaviors engendered by panic attacks and phobias, is also indicated.

As the public becomes more knowledgeable about the biomedical factors in psychiatric illnesses, malpractice lawsuits against therapists who misdiagnose these illnesses or who misapply psychotherapy and psychoactive drug therapy are becoming more common. In the future, it is likely that all manner of mental health providers will have to become more medically sophisticated and rely more on medical testing for the purpose of the differential diagnosis of illnesses presenting psychiatric symptoms.

Perspective and Prospects

Theories of abnormal behavior have existed since prehistoric times. At first, these centered on supernatural forces. Behavior disturbances were thought to result from invasion by evil spirits. Treatment was likely to consist of trephining—drilling a hole in the skull to allow malevolent spirits to escape. The threat of trephination must have motivated many psychotic individuals to stay out of public view or to comply as nearly as possible with social expectations.

In the fourth century B.C.E., the Greek physician Hippocrates proposed the first rudimentary biomedical theory. He proposed that illnesses, including mental illnesses, resulted from imbalances in vital bodily fluids. His break with supernatural explanations resulted in more humane treatment of the mentally ill. Unfortunately, this trend proved to be abortive. By medieval times, theories of abnormality had reverted to demonology. Mental illness was often attributed to demoniac possession, and "treatment" was sometimes little less than torture.

The Renaissance, with its revival of learning and interest in nature, initially saw little change in this attitude. People whose behavior was considered peculiar were often accused of witchcraft or of conspiring with the devil. As knowledge of the human organism increased, however, superstitions again gave way to speculation that "insanity" resulted from physical illness or injury. The mentally ill were consigned to asylums where, it was hoped, they would be treated by physicians. In most cases, unfortunately, asylums were essentially prisons, and medical treatment, when available, was rarely effective.

Two historical movements were responsible for restoring humane treatment to the mentally ill. The first was a moral reform movement ushered in by such individuals as Phillipe Pinel in France, William Tuke in England, and Dorothea Dix in America.

The second was continuing research in chemistry, biology, and medicine. By the nineteenth century, the brain was recognized as the seat of human reasoning and emotion. Once thought to be a place of supernatural happenings, the brain was finally revealed to be an organ not unlike the liver. Like the liver, the brain is subject to organic disturbances, and the result of these is similarly predictable—namely,

psychological abnormalities. Discovery of diseases, such as advanced syphilis, that cause brain deterioration and are characterized by psychological symptoms, supported this organic model.

By the mid-twentieth century, little reasonable doubt remained that some psychological disturbances have biomedical causes. Interest centered especially on schizophrenia, major depressive disorder, and manic-depressive psychosis (later called bipolar disorder). Genetic studies strongly indicated that organic factors existed in each of these illnesses, and research was directed toward finding the biomedical fault and effecting a cure.

Paradoxically, effective treatments were found before medical understanding of the disorders was achieved. Therapeutic drugs were developed first for schizophrenia, then for depression, and finally for anxiety. These drugs proved to be important research tools, leading directly to discovery of neurotransmitter systems in the brain and helping to elucidate the biochemical nature of brain functioning. Much neuroscience research is still motivated by the desire for a better biomedical understanding of psychological disorders, which will ultimately lead to more effective treatments and patient care for these conditions.

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William B. King

See also:

Abnormality; Agoraphobia and Panic Disorders; Anxiety Disorders; Depression; Madness: Historical Concepts; Manic-Depressive Disorder; Psychoactive Drug Therapy; Schizophrenia; Schizophrenia: High-Risk Children; Seasonal Affective Disorder.

ABNORMALITY
Cognitive Models

Type of psychology: Psychopathology
Fields of study: Behavioral and cognitive models; cognitive processes; models of abnormality

The cognitive perspective on psychopathology asserts that faulty thinking in the form of irrational or illogical thought processes leads to abnormal behavior; although the cognitive approach has been criticized for overlooking biological or genetic influences, it has led to effective treatments for anxiety and depression.

Principal terms

APPRAISAL: a short-term cognitive process; an automatic evaluation of an event based on past experience

ATTRIBUTION: a short-term cognitive process in which the cause of an event is assigned to someone or something

COGNITIONS: thoughts believed to lead to certain behavioral responses

COGNITIVE BEHAVIOR THERAPY: therapy that integrates principles of learning theory with cognitive strategies to treat disorders such as depression, anxiety, and other behavioral problems (smoking, obesity)

COGNITIVE BIAS: the particular way in which one sees the world and forms a basis for interpreting or misinterpreting events from a certain perspective

COGNITIVE EXPECTANCY: the belief that something done by oneself or others will lead to a certain outcome

COGNITIVE PROCESSES: the processes a person uses to become aware of events or things and their mental representations: learning, memory, images, reason, and problem solving

Overview

Cognitive models of abnormality assume that the way a person interprets and evaluates experience through his or her thoughts leads directly to emotional and behavioral consequences. These units of thought are called cognitions. Activities involving reasoning, memory, imagining, problem solving, and decision making form the mental representations of events in one's life and are called cognitive processes. Short-term cognitive processes are referred to as "expectations, attributions, and appraisals," and long-term cognitive processes are called "beliefs." When viewing psychopathology (the study of abnormal behavior) from a cognitive perspective, illogical, erroneous, or irrational thoughts are seen as the cause of the maladaptive behavioral responses.

Behaviorists believe that maladaptive behavior is learned through the principles of conditioning and reinforcement; however, cognitive psychologists note that phobias, fear reactions, or aggressive behavior can be acquired through observa-

tion or modeling alone, without any direct experience, as Albert Bandura demonstrated in the case of aggression. Bandura conducted a study in which children observed and then imitated adult "parental models" whom they viewed punching and kicking an inflatable "Bobo" doll. It became increasingly apparent that strict behavioral explanations for abnormal behavior were inadequate. Cognitive psychologists began to look for the intervening variable and proposed that the key to behavioral responses is the way people think about and perceive events. The children who imitated the parental models probably thought, "If a grown-up can kick and punch that doll, then I can too."

Dissonant cognitions and their contribution to anxiety disorders or neurotic behavior was explained by Carl Rogers in the early 1960's. Rogers believed that the stronger the magnitude or perception of threat, the more likely it is that a person will resort to denying or distorting the event. This happens as the person attempts to cope with information that is dissonant (does not fit) with his or her expectations. As a result of this process, Rogers suggested, one's self-image lowers as coping strategies for anxiety begin to fail.

Aaron T. Beck and Donald Meichenbaum both developed comprehensive theories regarding the influence of cognitive processes on the onset and maintenance of psychiatric disorders such as anxiety and depression. Beck systematically studied the illogical or negative thought processes of an individual that occur in response to stimuli through a process called rational analysis. He set up a series of homework assignments, designed to be accomplished easily, to assist the client in changing maladaptive thoughts and behaviors. By encouraging the client to engage in behaviors he or she has previously avoided, Beck demonstrated the ability to change the irrational beliefs that had inhibited those behaviors in the first place.

Beck's cognitive interpretation of anxiety disorders is the following: Such a disorder has occurred when a person has a negative, distorted view (schema) of some event, thing, or person and responds with anxiety when exposed to the feared situation or stimulus because of this distorted view. These cognitive errors are thought to be based on early experiences, and they lead to negative attributions, such as "I did not get promoted because I cannot handle any stress," or to negative appraisals, such as "I am a nervous person." Expectations are other forms of short-term cognitions; they include "outcome expectations" that refer to the desired outcome and "efficacy expectations" that refer to whether the person has the capacity to accomplish a behavior that produces a desired outcome. Attributions, or automatic explanations for events, can be global ("I am a failure at everything") or specific ("I am not good at football"). They can be stable (fixed), as in "I will always be unhappy," or unstable (changing), as in "I am having a bad day but tomorrow will be better," and can be internal, as in "It is my fault I had an accident; I should have seen the car coming through the stop sign," or external, as in "The other person ran the stop sign and hit my car." A cognitive therapist tries to get clients to adjust their attributions to be specific, unstable, and external in order to improve problems such as anxiety.

Beck used the cognitive model to understand how depression arises and is maintained. He proposed the existence of a "negative cognitive triad" that consists

of negative thoughts about the present, the past, and the future. This negative triad forms a vicious circle of thinking that leads to the hopelessness and helplessness associated with depressive disorders. A cognitive therapist would intervene at any point in the triad to change the pessimistic outlook and to help the client increase involvement in positive rewarding experiences.

Donald Meichenbaum, a cognitive therapist, explored a client's illogical beliefs and used an interview style he called "Columbo style interviewing," in which the therapist encourages the client to assist in solving the mystery of why illogical thoughts are allowed to influence the client's behavior. Meichenbaum, in a supportive but gently confrontational manner, engaged the client in the therapeutic task. Most cognitive psychologists use techniques such as "thought substitution" and "behavioral substitution" to replace negative thoughts and behaviors with more appropriate behaviors. The process of changing the negative or illogical thought processes has been called cognitive restructuring. For example, Meichenbaum might say to a client, "Maybe you think you have no friends or that no one likes you, but that cannot be true, because you just named six people with whom you socialize regularly. I wonder if you can help me figure this puzzle out?"

Albert Ellis used a form of cognitive therapy he called rational-emotive therapy to accomplish the corrective process. Ellis used a technique called disputation to help a person replace damaging thoughts such as "I should always be perfect" or "Everyone must always love me" with more realistic ideas. Ellis's belief that people are ruled by their "shoulds" and "musts" and need to become aware of this to live happier and fuller lives led to his treatment approach.

Cognitive processes have been examined as contributors to childhood psychopathology. Developmental psychologists focus on cognitive functions as organizing capacities for children's ego functions. This model uses an information-processing analogy for the various ego functions (reasoning, problem solving, and so on). As the child progresses developmentally and cognitively, the cognitive information-processing functions become more complex and sophisticated. Individuals who have difficulty with these cognitive functions may be more vulnerable to experiencing psychopathology, since their ego functions are not as flexible or adaptive as those of a person who has achieved higher developmental levels of cognitive functioning. Children who have major psychiatric disorders such as schizophrenia may have immature, egocentric ego capacity, compared to mentally healthy children. This cognitive information-processing model has been expanded to adult psychopathology by Michael F. Basch in his book *Understanding Psychotherapy* (1988).

Applications

David Shapiro applied the theory of different levels of cognitive organization to personality styles. His book *Neurotic Styles* (1965) illustrates with intriguing examples the psychopathological forms of experiencing, perceiving, and relating to the world that accompany depressive, obsessive-compulsive, paranoid, and other personality styles.

Many other types of psychiatric problems have been addressed by the cognitive

model. Alan Marlatt used the cognitive approach to explain the addictive cycle of alcohol "craving" and chronic drinking. A person's cognitive expectancy that alcohol will reduce anxiety or help him or her get through a difficult social situation fuels the person's desire for alcohol or other addictive substances. Marlatt's work has been utilized in the treatment of obesity, in which the addictive substance is food, and the process of craving and cognitive expectancy is thought to be in some ways similar to that of alcohol abuse. If a person who is obese can change the automatic negative thoughts that accompany a lapse (a temporary reversion to maladaptive habits), such as "I binged once this week; therefore I am a failure at managing my weight, so why bother trying to lose any more weight?" to more positive thoughts, such as "Well, I have only binged once this week, I can compensate with more exercise," it allows him or her to regain control over his or her behavior and resume positive weight-management strategies. If an obese individual does not regain control cognitively and behaviorally over his or her eating habits, the risk of relapse becomes greater.

Cognitive-behavioral approaches have been applied in group settings with eating-disordered populations and in couples therapy for marital problems. Meichenbaum applied the cognitive approach to stress management in a treatment approach outlined in his book *Stress Inoculation Training: A Clinical Guidebook* (1985). In this application, he developed a short manual designed to help a therapist take a person through the steps of preparing for and coping with various stressors.

Self-help programs are available and are increasing in popularity for individuals who have discrete problems such as having difficulty relaxing or difficulty with smoking cessation, test anxiety, stress management, or chronic headache. These programs, often on audiotapes or in books, utilize cognitive strategies to address negative thought patterns associated with these problems and substitute more appropriate thoughts and behaviors in a process called cognitive restructuring. In addition, these self-help programs use practice homework assignments—daily logs or journals to document and record behavior change toward the targeted goal.

A set of audiotapes, developed in 1991 by Thomas Cash, utilizes cognitive strategies to identify cognitive distortions and correct distorted body image. He found a total of twelve cognitive errors that people make that affect body image negatively, such as "magnification of flaws," "overlooking assets," and "comparing oneself to more beautiful others." Cash's research found that as many as 40 percent of normal-weight women and 30 percent of normal-weight men are dissatisfied with some aspects of their physical appearance. If normal-weight individuals have difficulty with body image, then one can imagine the problems someone with an eating disorder has with accepting his or her body. In fact, one of the most difficult aspects to treat in individuals with eating disorders is the cognitive problem of body-image distortion.

Perspective and Prospects

The cognitive model was born out of a dissatisfaction with models of "radical behaviorism" of the 1950's. Cognitive psychologists believed that there was more to understanding abnormal behavior than just looking at the connection between

an environmental event or stimulus and the resulting behavior—the approach used by the most prominent behavioral psychologist at the time, B. F. Skinner. In other words, cognitive psychologists believe that understanding the way people interpret or evaluate events in their lives is the key to correcting faulty thinking and abnormal behavior. The cognitive psychology movement in relation to understanding and treating psychopathology is relatively new, starting sometime in the early 1960's; many important studies were conducted in the 1970's and 1980's.

Aaron T. Beck began publishing his work on the cognitive aspects of depression in the 1960's. Continuing that line of research, he expanded it into the cognitive understanding of anxiety disorders and their treatment. Beck's studies on hopelessness and suicide spanned the decades from the 1970's to the 1990's. He found that the single best predictor for future suicide was the cognitive variable of hopelessness, and he developed the Beck Depression Inventory (BDI) to measure the cognitive, behavioral, motivational, and physical aspects of depression. Treatment of personality-disordered individuals from the cognitive perspective was introduced by Beck in his book *Cognitive Therapy of Personality Disorders* (1990). For a long time, many in the helping professions thought that individuals with personality disorders (long-standing maladaptive ways of perceiving and behaving) were untreatable. There have been some effective approaches for understanding and treating characterological problems with psychodynamic methods, but these have been criticized for being time-consuming and expensive. Beck's cognitive therapy for personality disorders holds the promise of utilizing briefer forms of treatment for people with personality disorders.

Donald Meichenbaum published *Cognitive-Behavior Modification: An Integrative Approach* (1977) and presented numerous workshops on the cognitive treatment of depression to professional therapists and counselors from virtually every mental health discipline. Arnold Lazarus developed the multimodal approach to treatment in the 1970's, which consists of the following components, referred to as the "basic id": behavioral, affective, sensation, interpersonal, cognitive, imaging, and drugs (for psychotropic medication). Lazarus demonstrated success with his multimodal comprehensive treatment approach for individuals with severe disorders such as schizophrenia. Lazarus and Alan Fay applied the cognitive-behavioral approach to the treatment of couples in marital therapy and wrote a number of useful books on this subject. Some are designed for the general public as self-help reference tools to be used as an adjunct to therapy.

Wallace Wilkins, like Beck, applied cognitive psychotherapy principles to the treatment of mood disorders. He used an approach that he called personal empowering strategies for improving moods, which works on the principle of increasing self-enhancing thoughts to improve mood and behavior. Wilkins outlined a three-step process: building a foundation, identifying self-limiting thoughts, and perishing thoughts. His list of perishable thoughts is long and includes black-or-white thinking; catastrophic thinking; shoulds, oughts, and musts; perfectionistic evaluation standards; and many others. He helped clients change two critical processes: externalizing causes for success and internalizing causes for failure.

Beginning in the late 1980's, the area of developmental psychopathology gained

a foothold and a new momentum in the study of abnormality. This discipline represents the marriage of clinical and developmental psychology in the joint effort to understand the development and maintenance of psychiatric disorders. New models for comprehending abnormal psychology, particularly in children but also in adults, have been generated from this approach. Philip Cowan developed the "nine-cell model," which represents a three-by-three matrix for the conceptualization of psychopathology. He incorporated biological, environmental, and interactive aspects on the horizontal axis, with individual, psychological (cognitive), and relationship aspects on the vertical axis. The resulting framework of nine cells allows the reader to understand the interrelationship of multidimensional contributors to psychopathology and shows the many ways one can intervene in any of the cells to begin the corrective treatment process. Each cell contains a theoretical cause for the disorder and a proposed treatment. In the future, comprehensive models such as Cowan's nine-cell model may further clarify the interconnection of cognitive processes with behavioral, biological, interpersonal, environmental, and genetic variables.

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See also:

Abnormality; Addictive Personality and Behaviors; Aggression: Definitions and Theoretical Explanations; Aggression: Reduction and Control; Alcoholism; Anorexia Nervosa and Bulimia Nervosa; Cognitive Behavior Therapy; Cognitive Therapy; Eating Disorders; Rational-Emotive Therapy; Reality Therapy; Transactional Analysis.

ABNORMALITY
Family Models

Type of psychology: Psychopathology
Fields of study: Interpersonal relations; models of abnormality

Dysfunctional family communications and structures have been regarded as contributing to psychopathology of family members. These faulty communications and structures can lead to the scapegoating and labeling of vulnerable family members. In certain families, significant psychopathology in either or both parents can lead to disturbed family communications including double-bind messages, denial or injection of meaning, and distortion of meaning.

Principal terms

DOUBLE-BIND COMMUNICATION: a statement that contains two independent and contradictory messages; results in a "no-win" situation for the recipient of the communication

DYSFUNCTIONAL FAMILY: a family grouping that is characterized by the presence of disturbed interactions and communications; an abusive, incestuous, or alcoholic family

SCAPEGOATING: the targeting of one member of a family, usually a child, by the other members as the "problem child" or "identified patient"

SCHISMATIC FAMILY STRUCTURE: a disturbed family structure that is created when there is marital hostility and the child or children are forced to mediate between the parents or choose sides in the marital problem

SCHIZOPHRENOGENIC: a term that refers to a parent whose communication style is dominated by double-bind or contradictory communications to the child

SKEWED FAMILY STRUCTURE: a disturbed family structure formed when a parent is mentally ill and the other parent and members of the family "adopt" the distorted view of the mentally ill parent to keep peace in the home

SYMBIOTIC RELATIONSHIP: an overprotective, often enmeshed relationship between a parent and child

Overview

A certain amount of conflict, stress, and disagreement is common in most family systems. It has even been jokingly suggested that no one has been reared in a "functional family." Yet there are a significant number of families whose family structures or systems are definitely thought to be pathological, or dysfunctional, when viewed by standards set by mental health professionals or representatives of other social agencies. Families in which significant substance abuse is present, such as alcoholic family settings, are an example of where pathological family dynamics would be likely to occur. In addition, families in which child abuse (emotional or physical), incest, or other forms of victimization and scapegoating

occur are also described as dysfunctional.

Family models of abnormality include those studied in relation to the hypothesized development of schizophrenia. Most researchers now regard schizophrenia as a biological disease, a major psychiatric disorder which is caused by a biochemical imbalance or structural brain disorder. In the early views of investigators who studied family interaction, certain family structures were thought to foster psychosis. Three early family models thought to contribute to schizophrenia were schizophrenogenic, schismatic, and skewed family structures.

Schizophrenogenic referred to settings in which parents (usually the mother) communicate to their children using "double-bind" messages. A double-bind message refers to communication containing two contradictory, opposing messages. An example is when a mother says to a child, "Come here and give me a hug and show me you love me," and then, when the child complies, pushes him or her away and says, "Don't touch me, you'll mess up my clothes." One can easily see that a child who complies with such a communication is in a "no-win" situation in which anything the child does will meet with dissatisfaction. Another double-bind communication is when the parent makes a comment such as "You should not do that," but says it in a tone of voice that is permissive. The child is left in a state of confusion about the real message and what is expected of him or her.

A second type of disturbed family structure is referred to as a schismatic family structure. Schismatic families are those in which there are significant marital problems that are not being addressed within the marital dyad. Instead, the children are triangulated into the marital relationship and often serve as go-betweens for marital communication. There may be an attempt on the part of one parent to get the child to align with that parent against the other parent. This results in confusion and guilt in the child, who is forced to choose sides and align against a parent.

The third disturbed family structure is the skewed family. In this family, one member, usually one of the parents, has a major mental illness. The rest of the family adopts the disturbed view of the world in order to keep peace at home. For example, in the case of a family in which the father has chronic paranoid schizophrenia, the family members, including the healthy spouse, assist in not letting others into the home, keep the drapes closed, and generally do not trust outsiders. All of this is designed to keep the fears of the disturbed parent at a minimum. Additional pathological communications found in disturbed families include messages in which one person tries to tell another how the other person thinks or feels. Denial of meaning, for example, refers to one person telling another that the other person is not really angry or depressed when in fact the person is. Distortion of meaning occurs when the first person tells the second person that the second person really *means* to say something other than what the person has said; injection of meaning is telling someone else what he or she thinks.

Margaret Mahler, a psychoanalytic theorist, studied childhood and family development in the early 1950's and proposed a developmental stage theory for the healthy development of the self. If parental behaviors and communications are disturbed, the child's development can be adversely affected. This can be manifested in enmeshed, symbiotic relationships in which the mother intrudes on her

child and literally invades the child's autonomy or development of the self. A mother who develops a symbiotic relationship with a child may not give adequate room for the child to develop or adequate privacy and respect to the child's own ideas. A child in this type of relationship will not learn to trust his or her own ideas and may remain dependent on the parent into the adult years.

Theodore Lidz, who studied family interactions in the 1960's, also found that the parents' personalities and the marital coalition strongly influenced the effectiveness of their children's ability to negotiate the outside world. In some cases, the child's mental illness can appear to have been learned from the parent's mental illness and pathological behaviors. Both chaotic families, which lack a stable figure with whom the child can identify, and rigid families, which permit only superficial, stereotyped communications and behaviors, have been the breeding grounds for disturbed children, particularly children with schizophrenia; however, many normal children have also come from these homes. Research is increasingly focusing on these resilient children, those who are able to emerge from pathological families relatively emotionally intact.

Applications

Applications of the knowledge that has been gathered regarding disturbed family systems and family communications have been plentiful. One area has been the development of a parental support group called Parents Anonymous. This program has been developed on the twelve-step approach of Alcoholics Anonymous (AA). Often, these groups are sponsored by an agency and may have a professional counselor as a leader. Parents Anonymous has been successful in helping some parents gain advice, support, and understanding of their parenting behaviors. It is a proactive approach that assists all parents, and especially parents who feel that they may harm their children either emotionally or physically. Along this line of prevention, child abuse hotlines and family crisis day care centers have been established in many communities. Parents who are under stress can call for assistance or go to a crisis center and receive counseling while someone else takes over the child care.

Thomas Gordon wrote a book that has been widely read entitled *Parent Effectiveness Training: The Tested New Way to Raise Responsible Children* (1972). This is a guide for all parents that presents positive alternatives for discipline and scheduling of family activities. Communication patterns are suggested that do not negate the child but make the desired behaviors clear and easy to understand. The book has been used as an aid to family therapy and for adjunctive parent counseling of parents whose children may be in therapy.

Family therapy itself has been a growing area. Multigroup family therapy has also been developed to bring families together in this process. Filial therapy was developed as a unique approach established on the principle of using parents as therapists for their own children. Lawrence Hornsby and Alan Applebaum expanded on the approach in the late 1970's to involve the parents in therapy themselves as well as in the play therapy with their own children. Hornsby and Applebaum then supervise the direction of the play therapy. Six to eight sessions are conducted to train the

parents, who then continue the play therapy in their home on a weekly basis.

There has been an increasing focus on the nuclear family structure and on the single-parent family. These family structures have disadvantages that can lead to increased stress on the parents and the children. Without an extended family network of support, many times the focus on maintaining a career competes with the needs of the children. Third parties such as day care centers, schools, churches, and babysitters become key influences on the development of the children, and parents have been cautioned to choose such settings and caregivers wisely. Research has suggested that quality programs and caregivers can enhance the child's development; however, there have been numerous problems with unqualified, overburdened, or even pathological third-party caregivers who may contribute to disturbed child development.

The rise of addiction as a major form of pathology has also led to applications of family work with the complementary components of AA such as Al-Anon, Alateen, and ACOA (Adult Children of Alcoholics) support groups. There are now also support groups for victims of anorexia and bulimia and their family members. Most clinical treatment programs for these addictive or habit disorders require the family to be involved in the treatment and healing process. Sexual abuse and incest victim support groups can aid members in overcoming the devastating effects of growing up in a pathological, abusive environment.

Perspective and Prospects

Margaret Mahler, Frieda Fromm-Reichmann, Theodore Lidz, and other dynamic theorists noted the difference between normal and pathological family communications and structures in the mid 1900's. Faulty communications between child and parent, as well as disturbed family structures, have been correlated with disturbance in some offspring. The majority of children coming from pathological homes remain intact, however, which suggests these are not causal factors in mental illness but may be contributing factors. Some children may be vulnerable to such dynamics or may be singled out or scapegoated for abuse. For example, Lidz and others, in the mid 1950's, wrote about the effect of a remote or distant father on the subsequent development of schizophrenic or homosexual behavior in some children. Role reversals in family structure in which there is a weak, ineffective male model and a strong, overbearing female model have also been linked to variations in development of sexual identity in children.

Family therapy itself has been a growing area in the decades that followed. Salvador Minuchin, Virginia Satir, Jay Haley, Murray Bowen, and Carl Whittaker all made significant contributions to the field of family therapy and family systems theory in the decades that followed. Minuchin is credited, because of his work at the Philadelphia Child Guidance Center, with leading the movement toward family therapy during the decade of the 1970's. His "structural family therapy" approach uses systems theory to resolve family pathology. If the family system is changed, Minuchin feels, then the individual family members will also change and take on more adaptive roles within the new system.

Haley has focused on the particular meaning of certain communications and

wrote extensively in the 1970's about techniques for therapeutic intervention in disturbed family interactions. Haley and his colleagues often prescribe homework and specific exercises designed to break through family resistance to change. In fact, Haley will sometimes direct a family *not* to change in hopes that "going with the resistance" will eventually lead to effective improvement in the family interaction. This type of intervention has been called a paradoxical approach because of its ambiguous nature. Haley believes that an individual's psychopathology is a key component in the family system and that the individual's disturbance and symptoms cannot change unless the family also changes. From this understanding, the term "identified patient" was derived, which refers to the identification of one problem member in the family as being a symptom of the family pathology.

In the late 1960's, Virginia Satir's popular approach to family therapy was called conjoint family therapy. In order to develop a family system that better met the emotional needs of the family members, Satir focused on improving impaired communications and interactions as well as impaired relationships among family members. Also in this time period, family therapist Carl Whittaker demonstrated his intergenerational approach to family therapy in a film entitled *A Different Kind of Caring*. In this demonstration, Whittaker works with an entire family, focusing on both the parents and their needs and on the children, and on how the two generations influence each other. Whittaker often shares his own observations, using humor and anecdotes to "break the ice." Family therapy work is often difficult, and many therapists undertake it with a cotherapist to balance the therapeutic interchange.

In the late 1970's, Peter Steinglass studied the effects of specific communications and relapse rates of schizophrenia. His work, published in 1980, highlighted the importance of what Steinglass termed high expressed emotion (EE). EE refers to negative, hostile, often rejecting communications of the family directed toward a mentally ill (usually schizophrenic) member. Relapse rates have been 40 percent higher for clients returning to these types of hostile households after psychiatric hospitalization. Family work to educate the members about the effects of these types of communications is necessary to prevent relapse. If the family is so dysfunctional that it does not change to improve the home environment, alternate living arrangements for the client may be pursued.

Family dynamics, communication, and structure are key components in attempts to alleviate psychopathology. This work, although challenging, is expected to grow and continue to benefit both families and society well into the future.

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See also:

Abnormality; Anorexia Nervosa and Bulimia Nervosa; Behavioral Family Therapy; Child Abuse; Codependent Personality; Couples Therapy; Divorce and Separation: Adult Issues; Divorce and Separation: Children's Issues; Domestic Violence; Eating Disorders; Jealousy; Sibling Rivalry; Strategic Family Therapy; Teenage Suicide.

ABNORMALITY
Humanistic-Existential Models

Type of psychology: Psychopathology
Fields of study: Humanistic-phenomenological models; models of abnormality

The humanistic-existential approach views psychopathology as stemming from feelings of meaninglessness, valuelessness, and alienation; lack of commitment, will, and responsibility; and failure to grow and to realize potentials. This paradigm has led to therapies that emphasize awareness, authenticity, free will, choice, integration, human growth, and fulfillment.

Principal terms

EXISTENTIALISM: a viewpoint emphasizing human existence and situation in the world, and giving life meaning through the free choice of mature values and commitment to goals

HIERARCHY OF NEEDS: a sequence of basic human needs, including (from more to less powerful) physiological needs, safety and security, love and belongingness, esteem and respect, and self-actualization needs

HUMANISTIC PSYCHOLOGY: a branch of psychology that emphasizes the human tendencies toward growth and fulfillment, autonomy, choice, responsibility, and ultimate values such as truth, love, and justice

INCONGRUENCE: the possession of false aspects of the self-concept; lack of genuineness

PHENOMENOLOGY: an approach that stresses openness to direct experience in introspective or unsophisticated ways

SELF: the unified and integrated center of one's experience and awareness, which one experiences both subjectively, as an actor, and objectively, as recipient of actions

SELF-ACTUALIZATION: a constructive process of functioning optimally and fulfilling one's potential; characterized by acceptance, autonomy, accurate perceptions, creativity, high ethics, personal growing, and societal contributions

Overview

Humanistic-existential models provide a way of understanding psychopathology that is an alternative to those offered by the biological, psychoanalytic, and behavioral and social learning paradigms. In contrast to explaining abnormal behavior through biological or physiological defects or anomalies (the medical or illness model), or through unconscious intrapsychic conflict and unresolved psychosexual developmental issues from the first six years of life (the psychoanalytic model), or as a result of past conditioning or reinforcement history or observational learning (the learning paradigm), humanistic-existential models essentially maintain that abnormality reflects and results from a failure to grow and to realize one's potentials.

The humanistic viewpoint emphasizes that all people have the human potential to grow and the capacity for full functioning; given the proper conditions for growth, people will be self-determining, will exercise choice and responsibility, and will fulfill their potential and be self-actualizing.

Abnormality is the failure of such growth and development to be realized. Thus, in the humanistic model, health is not necessarily the absence of disease, but is instead something positive. Whereas the medical or illness model has traditionally stressed movement or change from sickness to normalcy, the humanistic model emphasizes change from normalcy or deficiency in growth to full functioning. The humanistic model also maintains that people must develop values and make their choices freely, based on their own experiences. If a person blindly accepts others' values and choices, then the person will lose a sense of self and become incongruent. Such incongruence is equivalent to abnormality.

The self is a central theme for humanistic psychologists. Carl Rogers postulated that all people have an actualizing tendency to maintain and enhance themselves, including their self-concept. Rogers described an organismic valuing process: What is experienced as satisfying is consistent with the actualizing tendency, and what is unsatisfying is not in accord with this tendency. When people distort or even deny experiences in conscious awareness, they have given up using their self or their organismic valuing process. Instead, they adopt conditions of worth that have been imposed by parents or other significant people. By becoming what others want them to be, or evaluating according to others' perceptions or experience, they obtain the positive regard and caring that is so important, but they sacrifice accurate and efficient perception of reality, and ultimately lose their true selves.

Failure to satisfy basic needs leads to deficiency and is another source of psychopathology. Abraham Maslow's motivational theory described a hierarchy of basic needs. Ranging from the more powerful to the less prepotent higher needs, these are physiological requirements, safety and security, love and belongingness, esteem and regard, aesthetic and cognitive, and self-actualization needs. In healthy, self-actualizing individuals, all the lower needs in the hierarchy are or have at one time been adequately satisfied; thus, these individuals can express more of their self-actualizing needs and motives (which include values such as truth, justice, beauty, and wholeness).

People are not self-actualizing if they are motivated primarily by lower deficiency needs, such as for safety, belongingness, or esteem; the self-actualization or growth motivation is the weakest of all the needs in the hierarchy. Maslow and other humanistic psychologists have identified other reasons why so few individuals may be self-actualizing. The force of habit, the tendency to stay where one is (inertia), and the fear of becoming all that one can be (which Maslow called the Jonah complex) are some psychological forces that conspire against growth. The misfortunes of poverty, poor parenting, or other sociocultural barriers can prevent growth motivation from being central. The tremendous power of culture, which can greatly inhibit deviation from the norm, or societal sanctions that can punish (socially or otherwise) those who stray too far beyond what society dictates as

normal or acceptable prevent many from realizing their true self-expression and potentials. Certain political freedoms are also basic requisites for human fulfillment.

According to Maslow, when a person does not function according to growth motivation and the various self-actualization needs (truth, beauty, justice, and others), then he or she suffers from various kinds of spiritual disorders such as cynicism, nihilism, or emptiness. Spiritual or existential disorders are also highlighted by the existential perspective. All humans must have the courage, commitment, and will to use their freedom to choose values that guide life, give life its meaning, and emphasize obligations to others. Failure to choose, to create one's essence, or to deal with normal guilt (awareness of not fulfilling potentials) or normal existential anxiety (stemming from challenges to one's values and from awareness of one's ultimate death or nonbeing) results in existential despair and frustration. An existential disorder or crisis is often a reflection of perceived meaninglessness, isolation, alienation, or valuelessness.

Both Rogers and Maslow characterized the actualizing tendency or self-actualization need as positive, constructive, rational, trustworthy, and in the direction of growth and harmony. Existentialists, not quite so optimistically, place additional emphasis on irrational forces and the potentiality of evil in the normal human personality.

Optimal health, full functioning, self-actualization, or existential being can be difficult to realize; Maslow spoke of the "psychopathology of the average," meaning that most normal people are content to be adjusted to their social group of society, and do not truly grow and realize their full potentials as human beings. Indeed, Maslow suggested that perhaps only 1 percent of the American population might be self-actualizing. Existential crises, problems of values and meaning, stunted growth, and lack of fulfillment are not uncommon among materially comfortable people.

Applications

Humanistic and existential models are appropriately applied in situations in which clients desire not merely symptomatic relief, but also to become more aware of self and of existential conflicts and to achieve greater personal growth. Indeed, the humanistic paradigm has been particularly dissatisfied with pathology-centered conceptualizations, which have several disadvantages. One problem is that the illness model stresses the need (rather than the desirability) for treatment; the decision concerning need for therapy is often made by someone other than the person herself or himself. A second disadvantage is that therapists tend to be elevated above the patient, often in an authoritarian, parent-type role, rather than functioning in a more egalitarian therapeutic relationship. A third problem involves reinforcing the belief that people are sick and cannot really care for themselves or take an active and responsible role in their treatment. The humanistic model presents an alternative, one which would increase client choice and responsibility and focus on positive goals of fostering strengths rather than simply getting rid of illness or weakness. Humanistic theorists have observed that the goal of much

counseling and psychotherapy is more than eliminating pathology and achieving a state of normalcy.

Humanistic and existential therapists place great emphasis on the nature of the therapist-client relationship. Existential thinkers such as Martin Buber and Karl Jaspers stressed the tremendous importance and impact of therapists providing a full human presence, an authentic encounter, an "I-Thou" relationship with their clients. Such a deep encounter of intimacy and authenticity allows clients to gain access to their inner worlds through the unfolding of their real feelings, experiences, and potentials. Buber emphasized "unfolding" as the desired approach for both therapists and educators.

One of the leading existential analysts was Viktor Frankl, who developed an approach that he called logotherapy. By examining each person's unique way of "being there," in relation to the physical world, social world, and self, and by engaging in intimate, open, authentic therapeutic encounter, the logo therapist allows clients through their basic freedom to take responsibility for creating a life with meaning. Frankl emphasized techniques such as de-reflection and paradoxical intention. De-reflection involves taking attention away from oneself and one's problems and symptoms and focusing instead on activities that could be done, on experiences that can be enjoyed, and on other people. Paradoxical intention involves the client's engaging in and even exaggerating symptoms; by thus magnifying and even ridiculing the symptoms, the client can understand his or her control over the neurotic behaviors and symptoms, and can choose different responses. Logotherapy, like most humanistic-existential approaches, stresses authenticity and working with immediacy on issues and experience in the present; it is especially useful for people dealing with existential crises or boundary situations (such as confrontation with one's own death, major changes in life that highlight one's ultimate aloneness, or situations that challenge one's values or that give one a feeling of meaninglessness).

Gestalt therapy, developed by Fritz and Laura Perls, is yet another approach that is phenomenological and existential in form and process. Centrally important are awareness and dialogue, using the direct phenomenological experience of therapist and client. Process (what and how) in the present (here and now) is amplified and experienced through contact and existential dialogue, and clients are able in such an environment to assume responsibility for their choices and values. Gestalt therapists help patients focus on present experience, reexperience emotions or enact feelings or thoughts in the present, visualize, act out elements of a dream or parts of a conflict, exaggerate gestures or bodily symptoms—all to increase client self-awareness and integration through organismic self-regulation. Various specialized Gestalt techniques to increase awareness, to resolve splits or conflicts within the self, and to achieve integration have been developed; the therapist balances frustration and support to achieve these goals. This approach is particularly useful for people who tend to live in the past or the anticipated future, and for those who overemphasize intellectual functions and restrain or neglect their feelings and bodily experiences.

The person-centered approach is perhaps humanistic psychology's most prac-

ticed and influential system of psychotherapy. Developed as a process of counseling troubled individuals, it has extended to groups, to human relations training programs, and even to institutional change. The emphasis of the approach is squarely on the relationship. Grounded in trust, and with the therapist providing the necessary facilitative conditions of genuineness, unconditional positive regard for the client, and accurate empathy (deeply listening and reflecting the client's feelings and meanings without interpretation or judgment), the relationship is intended to allow the client to become more genuine and use the self as the basis for evaluating experience and behavior. The negative feelings, discouragement, and conflicts typically experienced in early therapy sessions give way to increased hope and self-acceptance and ultimately to reaching out to others and living a more flexible, adaptable, existential, constructive, full-functioning life. This approach is particularly helpful for those who seem to have lost their sense of who they are, or who are troubled because of external or internal blockages of their growth.

Rogers, Perls, Maslow, and other humanistic psychologists contributed greatly to the growth of the human potential movement, which promoted sensitivity training, encounter groups, and other forms of growth groups and workshops. Such notions and emphases as the self, growth, free will, choice, autonomy, commitment, responsibility, awareness, positive self-regard, integration, congruence, authenticity, immediacy, encounter, and human potential are also common to group and institutional applications of the humanistic-existential approach.

Perspective and Prospects

The biological or medical model of human health had rapidly gained ascendance during and after the Renaissance, and it dominated psychopathology during the 1800's. This medical approach continues to be a well-established and even entrenched model; types of maladjustment or problems in living such as depression, anxiety disorders, eating disorders, and alcoholism are often viewed essentially and sometimes exclusively as diseases, notwithstanding limited evidence of biological factors in many instances of these disorders.

Within contemporary psychopathology, the first comprehensive psychologically oriented approach for conceptualizing abnormality was Sigmund Freud's psychoanalysis. This model, like the medical model, sees the person as a patient, is pathology centered, implies little free will, and offers limited responsibility and choice. It has been criticized as being reductionistic (a person is reduced to drives and intrapsychic conflicts), mechanistic (a person is viewed as a machine would be), deterministic (a person has little freedom in creating himself or herself), and pessimistic (a person is motivated by irrational forces, including instincts for aggression, unrestrained sexuality, and self-destruction). The psychoanalytic approach inadequately accounts for human potentials or existential concerns. Yet until the humanistic-existential approaches developed, the psychoanalytic was the predominant psychotherapy system available.

The classical conditioning work of Ivan Pavlov, the tremendous influence of John B. Watson, and B. F. Skinner's subsequent monumental contributions in instrumental learning led the behavioral approach to rival the psychoanalytic in

explaining abnormality. Viewing psychopathology as the failure to learn adaptive responses or the learning of maladaptive ones, behaviorists utilize the scientific method with precise theoretical formulations and careful observation and measurement to test and advance their views. Their experimental approach, however, is also reductionistic (a person is reduced to stimulus-response bonds or a product of reinforcement history), mechanistic, and deterministic; Skinner disavowed freedom and even the possibility of dignity.

The humanistic-existential paradigm presented an alternative: a holistic, organismic, optimistic approach emphasizing innate growth tendencies, potentials, and freedom. Many instances of abnormality were viewed as failures to grow, and as resulting from perceived isolation and alienation in an increasingly technological and bureaucratic world, or as problems concerning values and meaning. In these cases, applying the other paradigms meant that people simply were not being understood or helped.

The humanistic-existential model emerged as a significant contemporary paradigm for explaining and treating psychopathology during the 1940's and 1950's, and became increasingly influential during the next two decades. Carl Rogers formulated client-centered therapy during the 1940's as an alternative to psychoanalytic techniques. Abraham Maslow devoted much of his professional life to the study of self-actualization. Ludwig Binswanger developed existential analysis during the 1940's; Rollo May and Irvin Yalom became highly influential developers of existential therapy. Fritz Perls's first book was published in the 1940's. Thus, both the humanistic and existential branches of this approach were developing simultaneously as coherent, interrelated perspectives.

Many humanistic and existential writers believe that their approach will be successful to the degree that their notions, emphases, and procedures are incorporated into the underlying attitudes, techniques, and approaches of the other major models. If this be the measure, then humanistic-existential writers have already been quite successful. From behavioral medicine to contemporary psychodynamic approaches to cognitive-behavioral strategies, many theorists and therapists have broadened their conceptualizing and enhanced the therapy process by incorporating at least some of the insights, concepts, techniques, and approaches championed by the major humanistic and existential writers. Given that the true origins of these insights and notions undoubtedly go back to the philosophers and religious leaders of antiquity, this important model has achieved another measure of success by penetrating to a large segment of the lay community. This paradigm points to and confronts dimensions of each person's existence and humanity that had previously been ignored by the other perspectives; in these ways, the humanistic-existential model has enhanced people's understanding of normality and abnormality, and of themselves.

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meaninglessness, and freedom. Also applies theory to clinical practice and examines implications of the approach.

Edward R. Whitson

See also:

Abnormality; Abnormality: Cognitive Models; Abnormality: Sociocultural Models; Gestalt Therapy; Person-Centered Therapy.

ABNORMALITY
Legal Models

Type of psychology: Psychopathology
Fields of study: Models of abnormality

The law assumes rationality. Abnormality is a departure from this rationality, including the incapacity to have criminal intent (insanity) and the inability to understand legal responsibilities (incompetence). The law protects citizens from those who are dangerous and protects harmless incompetents from themselves; psychological research has influenced a broadening of the "insanity" rule and a limitation on involuntary commitment.

Principal terms

INCOMPETENCY: the legally established lack of sufficient knowledge and judgment to perform a given right or responsibility

INSANITY: the condition of having a mental disease or defect so great that criminal intent or responsibility and punishability are not possible

M'NAGHTEN RULE: the traditional insanity rule, which holds that a person incapable of knowing the nature, quality, and wrongfulness of his or her act is legally "insane"

MENS REA: the possession of intent to commit a crime; intent must be present as well as the legal offense itself before a punishable crime exists (literally, "guilty mind")

PARENS PATRIAE: the power of the state to act as guardian of those people who cannot take care of themselves (literally, "parent of the country")

PSYCHOSIS: a mental condition involving distortion of universal assumptions about time, space, cause and effect, or "reality"

RATIONALITY: the capability of thinking logically so that one is aware of the consequences (rewards and costs) of actions

Overview

In the United States, three broadly based legal principles and their elaboration by judicial interpretation (case law) and by legislatures (statutory law) reflect the law's core assumptions about normal and abnormal behavior. These principles are rationality, the protection of the incompetent, and protection from the dangerous.

The first of these concerns is the importance of rational understanding. The normal person is, the law assumes, sufficiently rational that the person can base his or her choices and actions upon a consideration of possible consequences, of benefits and costs. In the civil law, two people making a contract or agreement are expected to be "competent" to understand its terms. In the criminal law, a destructive act is deemed much worse and punishable if it is intentional and deliberate. Concern about motivation extends through the normal range of illegal acts, and

offenses resulting from malice (that is, intentional offenses) are generally dealt with more harshly than those that result from mere negligence. Under the civil law, those incapable of understanding simple business transactions with ordinary prudence may be deemed "incompetent." Under the criminal law, in a principle that dates back to Roman times, persons who are deprived of understanding are considered incapable of intent and the corresponding guilty mind (*mens rea*). In the words of the 1843 M'Naghten rule (named for Daniel M'Naghten, also spelled McNaughton), if the accused is laboring under such a defect of reason from a disease of the mind as not to know the nature and quality of the act he was doing, or, if he did know it, he did not know what he was doing was wrong, then this accused person is "insane" and cannot be found guilty.

Two other basic legal principles justify society's special attention to helpless people and to dangerous people. The doctrine of *parens patriae* as early as 1324 authorized King Edward II of England to protect the lands and profits of "idiots" and "lunatics." Under this doctrine, the state may appoint a guardian for the harmless but helpless mentally ill—that is, those incapable of managing their ordinary business affairs. Since the mentally incompetent cannot make an informed decision about their need for treatment, the protection of the state allows the "commitment" of such people to hospitals, regardless of their own wishes.

The third doctrine which has been applied to the abnormal is the "police power" of the state. Inherent in the very concept of a state is a duty to protect its citizens from danger to their personal safety or property. This duty is considered to include the right to remove from society those abnormal people who are dangerous and to segregate them in institutions. In the United States, the laws of all fifty states authorize the restraint and custody of persons displaying aberrant behaviors that may be dangerous to themselves or others.

These principles of law, all based upon logically derived exemptions from assumptions concerning rational intent and understanding, have changed slowly in response to influences from the public and from the mental health professions. In institutionalization decisions, the *parens patriae* power of the state became more widely used beginning in the mid-nineteenth century as judges and the public became more accepting of the mental health enterprise. Hospitals were considered protective, nonstressful environments where the harmless insane would be safe.

In the decade of the 1960's, the arguments of critics of these views became widely known. Psychiatrist Thomas Szasz argued that mental illnesses were little more than crude metaphors for "problems in living," myths that were used, harmfully, to deprive individuals of their feelings of responsibility. Erving Goffman charged that institutionalization was a degrading, dependency-producing process. As a result of these criticisms, the institutionalization of individuals for their own welfare (*parens patriae*) became less common. Dangerousness became the major reason for involuntary commitment.

The insanity exemption from legal responsibility also has been adjusted and modified. The central concern of the professionals was that strict M'Naghten-rule "insanity" included only the small minority of offenders who had no understanding whatsoever that their offense was unlawful, the sort of offender who shot the victim

thinking he was a tree. An offender could be mentally ill by psychiatric standards but still be considered sane. As a response to these criticisms, new legal tests that expanded the meaning of insanity were somewhat experimentally adopted by a few courts. The "irresistible impulse" rule, stating that a person would not be considered responsible if driven by an impulse so strong it would have occurred had there been "a policeman at his elbow," supplemented the M'Naghten rule in some states. In 1954, the federal courts, in the case of the *United States v. Durham*, adopted an even simpler rule: Insanity involves simply the illegal act being "the product of mental disease or defect." This Durham rule was quickly attacked for turning a legal decision over to mental health professionals, some of whom seemed to consider virtually all deviancy a disease. Stung by such criticisms, the federal courts, along with twenty-six states, adopted a rule proposed by the American Law Institutes (the ALI rule) that seemed to incorporate aspects of each of the preceding rules: Because of mental disease or defect (Durham rule), the defendant lacks the substantial capacity to appreciate the criminality of his or her conduct (a softening of M'Naghten "know"), or to conform this act to the requirements of law (the substance of the "irresistible impulse test").

As a result of public fears that manipulative villains would use the insanity defense as a way of escaping punishment, some states have adopted the alternative of allowing "guilty but mentally ill" verdicts or abolishing the insanity plea entirely.

Applications

Abstract models of abnormality represented in the law often present many complexities when applied to an actual case. Before such concepts as insanity or dangerousness can be implemented, many commonsense and often implicit assumptions are added to the legal definitions.

Studies of the deliberations of mock (simulated) juries and the decisions of real juries in various types of cases suggest that a successful insanity plea would have a number of characteristics. The offender would have a record of psychiatric contact before the offense, preferably hospitalization. His or her offense would not seem to make sense—that is, it would involve a trivial reward and poor or no planning. His or her stated reasons for the offense would sound fantastic to others. He or she would initially be found incompetent to stand trial. The crime with which he or she was charged would not be murder and especially would not be seen as a heinous offense. Curiously enough, most of these factors are considered by juries regardless of the legal rule in effect. Most of the factors are involved in the 80 percent of all successful insanity pleas which seem sufficiently clear that they are not contested by the prosecution. Most defendants found not guilty by reason of insanity remain in mental institutions as long as they would have otherwise served in prison if convicted.

A case that displays most of the ambiguities that sometimes occur in the process, and that shifted public opinion against the legitimacy of the insanity plea, was the trial of John Hinckley, a young man who attempted to assassinate President Ronald Reagan and gravely wounded Reagan's press secretary. Hinckley's act had many

of the elements of an "insane" one. Hinckley identified very closely with a character in a popular motion picture, a loner who stalks the president and engages in a rescue attempt that ends in a bloody gun battle. So involved was Hinckley with the film that he seemed controlled by his fantasy and unaware of his own identity. Diagnosed a schizophrenic, a condition in which fantasies cannot be separated from reality, he had wandered aimlessly for years and had consulted psychiatrists. On the other hand, he had clearly planned the act, bought special bullets, and given every indication he knew the act was illegal. Under strict M'Naghten-rule standards, he would probably have been found to "know" right from wrong. Under the more liberal ALI standard, however, it was felt that he both had a mental disease and was driven to the act by his fantasy; he lacked the capacity to conform his behavior to the law. He was found "insane" and committed to locked facilities in a hospital.

Aside from illustrating the complexity of an actual case at law, the Hinckley case illustrates an implicit assumption of the public: A notorious offense against a popular leader seems to justify punishment. In other famous cases, the offenders appeared clearly schizophrenic as well, but "insanity" was not used successfully as a defense. Serial killer David Berkowitz received instructions from a dog; Herbert Mullin killed at random whenever instructed by mysterious voices. Both were found sane in spite of obvious symptoms. Heinous crimes seem to require punishment regardless of the mental state of the offender.

The investigation of the meaning of the term "dangerousness" offers an example of how a term can be operationalized by experience. This term has been elaborated by the laws of the various states. It usually includes dangerousness against oneself as well as others. It can include threats against the property of others or even, sometimes, unintended harm caused by incompetence. A retarded person wandering onto a busy highway might be a case of this last condition. Often the word "dangerousness" is used in connection with other aberrant behavior.

John Monahan, refining the word "dangerousness" to imply the prediction of future violent behavior, has reviewed several studies that have spoken to the question of the accuracy of such predictions. If one excludes that minority of such individuals who have already committed violent acts, the post hospitalization rate of violent acts of former mental patients seems approximately similar to the rate of violent acts in the public in general. In a typical study, offenders at a Massachusetts facility were evaluated for dangerousness by clinical examinations and by the careful construction of their life record. Of 435 patients released during a ten-year period, approximately 50 were evaluated as dangerous. The rate of commission of a new violent (assaultive) act was 35 percent among those predicted dangerous but only 8 percent among those judged nondangerous and ready for release: There was sufficiently more violence among the predicted group. This research was interpreted to indicate that such predictions could be made for groups. Nevertheless, two-thirds of those predicted as dangerous failed to commit another violent act during the five-year follow-up period. Were it not for a judicial order, they would have been incarcerated for what a team of mental health evaluators had to say about their potential—for what they were expected to do in the future. It should be added

that among the most valid predictors was the presence of overt violent acts in the past.

Perspective and Prospects

Legal models of abnormality were formulated in Western civilization many centuries before psychology existed as a science. The models were based upon principles concerning human beings that evolved in folk wisdom and in religion. The normal person was expected to be able to undertake important actions intentionally and to be aware of the consequences. Abnormality was any condition that involved the incapacity to make intentional decisions with awareness of the consequences. There was, by necessity, a sharp dividing line between the normal and abnormal, as a lack of competence made an agreement invalid. The degree of rationality needed was a minimal one involving only an understanding of the direct and immediate consequences of an act. The rest of the law concerning abnormality involved two additional considerations: the protection of the harmless insane, and protection of citizens from those who were "dangerous." For centuries, the legal system merely fine-tuned these basic principles: The M'Naghten rule expressed proof of the lack of criminal intent more precisely; state laws often provided in greater detail just what was meant by dangerousness.

The legal model evolved as a separate system and was little influenced by the academic psychology of the early twentieth century. Since about 1950, the legal model has been influenced by some general insights from the behavioral sciences. The broadening of the insanity rule and the narrowing of the justification for institutionalization were the direct effects of such influences.

Psychological models of abnormality, in contrast to legal models, tend to be less narrowly focused on thinking processes, look for causes and consequences that are hidden or far removed, and see abnormality as a matter of degree. Almost inevitably, psychological models are biased against seeing a criminal action entirely as the result of a decision made a few minutes before and in favor of determination by external events. A few psychologists have publicly extended the concept of mental illness to cover such conditions as "television intoxication." Public reactions to broadening the concept of abnormality, along with the Hinckley case, have led to pressures to eliminate the insanity defense altogether.

Psychology is well positioned to continue its contributions to legal models by helping to make clear the meaning of legal terms which sometimes imply predictions or refer to quantifiable dimensions. The skills involved in "competence to stand trial" or "legal responsibility" have been quantified in standardized interviews that yield numerical scores. This can bring greater objectivity to a process that has largely been intuitive. A better than chance prediction of future violent acts can be made only for those who have already committed violent acts. Further study of these violent actors might advance understanding of motivational factors that lead to the repetition of violence.

Psychological criticism of the legal system is sometimes little more than disguised criticism of the assumption of free will and responsibility on which the law is based. Psychology (and other behavioral sciences) generally looks for causes of

external events that are far removed from the point at which individual decisions are made.

The law, on the other hand, assumes that an individual can at any given moment exercise a choice, "free will." Any foreseeable consequences that come from that choice are "caused" by the individual who makes it. The assumption of free choice and responsibility found in the law is an assumption necessary to an ordered system of justice. For this reason, rational intent will continue to be an intrinsic part of the law, as will special treatment for those who lack the capacity to make this choice.

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Thomas E. DeWolfe

See also:

Abnormality; Abnormality: Behavioral Models; Abnormality: Biomedical Models; Abnormality: Sociocultural Models; Antisocial Personality; Juvenile Delinquency; Madness: Historical Concepts; Psychosis; Schizophrenia.

ABNORMALITY
Psychodynamic Models

Type of psychology: Psychopathology
Fields of study: Models of abnormality; psychodynamic and neoanalytic models

Psychodynamic models of psychopathology contribute much to the investigation of abnormality and to the study of personality in general. The psychodynamic view pivots around the strong influence of the unconscious and internal psychological conflict on human emotions and behavior and in the development of psychiatric disorders. Neoanalytic models such as ego analytic, ego psychology, and self/object relations models have gained increasing popularity.

Principal terms

CONVERSION DISORDER: a disorder in which unconscious conflicts are transformed into physical symptoms such as blindness, loss of function, or paralysis

DEFENSE MECHANISMS: coping strategies that distort reality to some degree and are used to deal with anxiety aroused by internal conflict

EGO: the fundamental part of the mind that mediates among the reality of the world, id forces, and superego forces

FIXATION: an inability to progress to the next level of psychosexual development because of overgratification or undergratification of desires at a particular stage

ID: the part of the mind that operates on the pleasure principle; contains unconscious biological drives for sex, hunger, and aggression

IDENTIFICATION: the internalization of parental or societal values, behaviors, and attitudes

PSYCHOSEXUAL STAGES: the stages of psychosexual (personality) development; they are the oral, anal, phallic, latency, and genital stages

SUPEREGO: the process in the mind that is commonly thought of as one's conscience

Overview

Psychoanalytic theory forms the basis for the psychodynamic model as developed by Sigmund Freud in the early 1900's. Freud and the other psychodynamic theorists of his time believed strongly in the principle of psychic determinism. This principle is founded on the belief that men and women are not free to choose their behaviors; rather, behaviors, both normal and abnormal, are determined or caused by a combination of intrapsychic forces, which Freud named the id, ego, and superego. These processes interact in the execution of internal mental activities that are both conscious and unconscious. Unsuccessfully resolved conflicts within the mind can lead to abnormal behavior. The ego, which operates on the reality principle, must negotiate between the desires generated by the id, the controls of the superego, and the demands of the real world. Successful negotiation can be illustrated by the following example. An ice cream truck drives through Michelle's

suburban neighborhood every day at dinner time. Michelle's parents have forbidden her to buy a Popsicle, however, because it will ruin her appetite. Michelle approaches her parents and says, "Can I buy a Popsicle now and put it in the freezer until after dinner? I promise I will clean my plate." In this example, the ego has arrived at an acceptable compromise between the id, which operates on the pleasure principle ("I want the Popsicle now") and the superego or conscience ("Mom and dad will be angry at me unless I wait until after dinner"). Partial or incomplete resolution of internal conflicts is thought to lead to psychopathology.

In 1905, Freud proposed that personality development progresses through a series of "psychosexual stages." Disorders such as schizophrenia, according to some psychoanalytic theorists, are thought to be a result of an individual's "regression," or return to an earlier, more primitive level of psychosexual development, such as the oral stage. This regression can signal that the patient is not ready to cope with the demands of adult sexuality or responsibility and may be unconsciously designed to elicit caregiving or nurturing from others. Some psychoanalysts have advocated a type of "reparenting therapy" to encourage resolution of early conflicts about being cared for and to encourage the patient to return to higher developmental levels of functioning. In the case of schizophrenia, symptoms such as symbolic language and bizarre gestures may represent the patient's distorted attempt to communicate the underlying conflict or trauma. Some patients who have experienced schizophrenic regression and withdrawal and recovered have reported that they knew people were talking to them but could not respond or look at them because of overwhelming fears, such as that the world would end. The intense, overwhelming anxiety and the accompanying difficulties in being able to communicate with others often make it more difficult to reach out to the individual who is suffering. The book *The Eden Express* (1975), by Mark Vonnegut, presents a personal account of the experience of developing schizophrenia and recovering from the disorder.

Many professionals believe that some major psychiatric disorders such as depression and schizophrenia result from both internal psychological conflict or trauma and biochemical changes or abnormalities. Combination treatments that utilize psychotropic medication to calm the overwhelming anxiety or treat the depression can often make the patient better able to benefit from psychodynamic therapies. Depression, according to psychoanalysts, may result from anger turned inward on the self. The self forms a love attachment to an idealized other in a close relationship; when the relationship is over, that part of the self that identified and internalized the image of the other turns the anger of rejection in on those parts of itself. Psychodynamic interventions would seek to help the depressed person release this anger in appropriate ways rather than internalize it.

The development of some personality disorders or traits is thought to have origins in the early (pregenital) psychosexual stages. Freud hypothesized that toilet training that was too harsh or too lax could lead to "fixation" in the anal stage. If someone became fixated at this or any other pregenital stage, Freud believed that he or she would be thwarted in achieving mature personality development. He proposed the "anal character" (such as the obsessive-compulsive personality) to

describe an adult who may be excessively sloppy or neat, depending on the nature of the toilet training the person experienced. Similarly, the oral character is a person who was fixated at the oral stage and may show symptoms such as chain smoking, overeating, or other excessive oral habits. Although this idea is intriguing, there has been little empirical support for these hypotheses.

Some of the anxiety disorders are thought to originate in the phallic stage. For example, a little boy who develops a phobia or irrational fear of adult men might have been thought to have displaced the castration anxiety he had experienced from his father to all adult men. The internal conflict related to sexuality results in anxiety and avoidance. If the central conflict of this period was resolved successfully, the child would progress to the next stage of development, the latency period. Partial resolution of any of the conflicts associated with the stages could lead to other psychiatric disorders. Freud believed that conflicts over sexuality and traumatic experiences would be repressed or eliminated from conscious awareness because they were too unpleasant and caused too much tension and anxiety if the person became conscious of these memories or thoughts. This reliance on repression can lead to dissociative disorders such as fugue states or multiple personality disorder, in which entire periods of a person's life are blocked out of conscious awareness. Although there is controversy over the existence of multiple personality disorder, a dissociative disorder in which alternate identities are formed through dissociation and a form of self-hypnosis as a defense against abuse or trauma, many clinicians believe they have treated individuals with this disorder.

Freud's last stage of development, the genital stage, represents the highest level of psychosexual development. Adults who have successfully negotiated the tasks of this stage are able to sublimate sexual and aggressive energy. Sublimation refers to the ability to channel these energies into socially acceptable activities. In this stage, mature sexuality and altruistic (nonselfish) love evolve. Persons who can function normally are thought to have reached this level of development; however, Sigmund Freud believed that even emotionally healthy people use defense mechanisms to cope with anxiety.

Anna Freud, his daughter, further developed and refined the list of defense mechanisms that were originally proposed. Each time one uses a defense mechanism, however, one gives up or distorts a little of the true reality one experiences. For example, a college student fails to attend class regularly, thinking he or she can pass the course anyway, but flunks the first test. The student then says to his or her roommate, "I would have passed the exam if the professor had given a fair test." In this example, the student uses the defense of denial, essentially disregarding his or her failure to attend class as a contributing factor in the poor academic outcome. It also demonstrates rationalization, or making up an excuse that is not accurate but is acceptable to one's self-esteem.

Freud treated the neurotic or anxiety disorders exhibited by his patients with the method of psychoanalytic psychotherapy. Clients, or patients, as they were referred to then, would lie on a couch, with Freud seated at the head, looking away from the client. Then the first step of psychoanalysis, called free association, would begin; the patient was encouraged to say anything that came to his or her mind.

Each thought or memory was believed to trigger subsequent memories and tap into the stream of unconscious thought. During the free association period, early childhood experiences were relived and their anxiety was released in a process called catharsis. This represented a cleansing of the mind through the release of repressed (forgotten) traumas. Repression, previously mentioned, is a defense mechanism that has a central place in psychodynamic theory; it is thought to occur at the unconscious level to block memories that are too painful for the person to remember. Freud used the psychoanalytic technique to treat a common disorder of the times, which was then called "hysteria." This disorder was thought by Freud to be caused by repressed memories that led to the expression of various symptoms such as temporary loss of vision, temporary paralysis, and anxiety.

The psychoanalytic model and the method of psychoanalysis have been criticized for several reasons. Neo-Freudians considered the psychodynamic model to be too focused on psychosexual development, determinism, sexuality, and aggression; however, most did believe that the model was viable for explaining the development of various psychiatric disorders. Psychoanalysis, as a method of treatment, has been criticized as being too time-consuming and expensive, often taking years to accomplish its goal. Proof of its effectiveness as a therapeutic approach has not been unequivocally documented by outcome research. Neoanalytic theorists (or ego psychologists, as some have been termed) developed psychodynamic theory further to focus more on the development of the self. Important contributors to modified versions of psychodynamic theory were Carl Jung, Alfred Adler, Karen Horney, and Harry Stack Sullivan. Important ego psychologists included Heinz Hartmann and Erik Erikson. Margaret Mahler, Heinz Kohut, Melanie Klein, James Masterson, and Otto Kernberg have also been contributors to self or object relations theory, another psychodynamic stage theory that refers to the development of mental representations of one's emotional attachments to significant others.

Applications

Psychoanalytic models have had widespread influence on the field of psychology and have strongly influenced contemporary thinking, especially in the area of marketing to consumers. Although there has been mixed empirical support for the advertising technique referred to as "subliminal persuasion," this technique has been used to market products to consumers in the form of subliminal messages flashed on television screens, subliminal audio messages played over piped-in music in stores, and pictures secretly embedded in magazine ads. Subliminal persuasion is designed to influence the unconscious mind in order to get people to purchase certain products without their conscious or direct awareness. Subliminal messages are also used in self-help programs produced on audiocassette tapes to help people relax or to raise their self-esteem. The unconscious subliminal messages are embedded in background sounds such as music and are not audible to the listener.

The most direct applications of the psychodynamic model have been in the ability to understand psychopathology and personality development. The use of this model to develop forms of short-term psychodynamic psychotherapy has played a significant role in the area of psychotherapy. Short-term therapy refers to

a treatment approach that is more focused and goal-oriented than traditional, classical psychoanalysis, with a maximum time limit of twenty sessions or six months. This approach has been popular with third-party reimbursement agencies such as insurance companies, who often impose limits on reimbursement.

The following case example illustrates the use of short-term psychodynamic treatment of a conversion disorder. Michael had been playing ball with a friend when the friend ran out into the street to retrieve the ball. The friend was hit by a car and became paralyzed and confined to a wheelchair. After a few weeks, Michael, who had been traumatized by witnessing the event and who felt guilty about having thrown the ball, lost the function of his legs and became unable to walk. Physical examination showed no organic cause for his paralysis, and he was referred to a psychodynamic therapist. A complete history was taken, which included recent events. His parents reported the incident with his friend; Michael, however, had repressed it and did not recall what had happened. One day in a therapy session, Michael noticed a picture in the office of a famous baseball player. He then remembered for the first time witnessing the accident (a memory he had previously found too anxiety provoking). After several more sessions in which Michael expressed his guilt and remorse over the accident, he began to realize that he did not intentionally want his friend to be hurt. Sometime later, Michael regained the use of his legs. The treatment took two months, with weekly one-hour sessions. In this case, the symptom of paralysis of Michael's legs represented the unconscious conversion of his intense internal anxiety into a physical symptom. The memory lapse for the incident represented repression and dissociation.

Art therapists have used psychodynamic models to understand the meaning underlying artwork created by emotionally disturbed children. This application is often referred to as art therapy or expressive therapy. The "kinetic house, tree, person" drawings and "draw a person" tests utilize principles of art therapy using psychoanalytic theory as the basis for interpreting the drawings and discovering the developmental level and psychological defenses of the child. Determining the presence of unconscious conflicts such as a child's difficulty with aggressive or sexual impulses has also been accomplished with these interpretive methods.

Hilde Bruch studied eating disorders, particularly anorexia nervosa and bulimia nervosa, for three decades and was a proponent of the ego-analytic approach to explain the underlying problem central to eating disorders. Bruch believed that the central problem in individuals with eating disorders was the failure to develop an autonomous self. According to her theory, women with anorexia seek to control their bodies as a substitute for their lack of control in making their own decisions and because they have not been able to develop mature ego functions as a result of parental overprotection or domination. Bruch's work has had a significant influence on the successful treatment of clients with eating disorders and represents a lasting contribution to the field of psychology.

Perspective and Prospects

Sigmund Freud has been described as the father of psychoanalysis, the forerunner of modern psychotherapy. He originally studied hypnosis and trained under Josef

Breuer. Freud was educated as a physician, with a specialty in neurology; he was also influenced by the theories of Charles Darwin, particularly *The Descent of Man* (1871). Freud's heritage was Jewish, and he was originally from Germany. He fled Germany to escape the Nazis, an event that undoubtedly had a strong influence on his perspective. He settled in Vienna, Austria, which became the seat of development of many psychoanalytic theoreticians of late Victorian times; however, because of the social setting (upper-middle-class Vienna) and the time period (Victorian), Freud's theories met with strong objection. Particularly offensive was his focus on infant sexuality as well as adult sexuality. During this period, society in Vienna was very strict and repressive regarding sexuality. Women, especially, were discouraged from expressing or even acknowledging sexual desires and impulses. The society was strongly patriarchal, with the male head of the household holding a dominant position of authority, under which the wife and children were seen as possessions. Thus, Freud's theory was not popular with the public; in fact, it was originally rejected by other professionals as well.

The Neo-Freudians, dissatisfied with the deterministic approach of psychoanalytic theory, began to branch out and broaden the psychodynamic perspective. Carl Jung, a Swiss psychiatrist, believed that Freud's theory was too negative and narrow. Jung proposed that the mind houses a "collective unconscious" that consists of archetypes, which are symbols of the experience common to all humans. In addition, Jung's therapy operated on the integration of conflicting or opposite aspects of the self, such as masculinity and femininity.

Another contemporary and colleague of Freud, Alfred Adler, disagreed with the part of drive theory that emphasized sexuality. Adler preferred to emphasize the ego, or the self, and one's relationships to others and society. He believed that humans suffer from feelings of inferiority, and thought that the important drive determining actions is a drive for dominance over others. In the early and mid-1900's, Harry Stack Sullivan and Karen Horney continued this emphasis on the importance of social relationships, specifically the importance of the parenting relationship. They suggested that poor parenting during early childhood leads to anxiety and poor self-concept in later adult years.

In this same period, Heinz Hartmann, credited with being the founding father of the contemporary school of ego psychology, proposed the existence of the "conflict-free sphere" of ego functioning. Hartmann believed that the ego not only negotiates between the opposing forces of the id and superego but also has independent, free functions of its own. Erik Erikson developed a theory of psychosocial development that outlined and defined the formation of "ego identity" achieved through a conflict resolution of crises presented at eight stages of development. For example, in the first stage, from birth to age two, the child has to learn whether it can trust its caretakers. If not, the child will have a basic mistrust that will influence subsequent development and relationships.

Margaret Mahler became one of the most influential object relations theorists. Object relations are defined as the mental representations of one's emotional attachments to significant others. Mahler developed a stage theory that outlines the development of the psychological birth of an individual. The stages are autism,

symbiosis, separation-individuation, and on-the-way-to-object-constancy. The end product of the progression through these stages is an individual who can function independently and hold mental representations of others as whole persons with both good and bad qualities. Mahler's separation-individuation stage has been one of the most important contributions to object relations theory; children who do not complete the tasks of the stage will never develop into fully independent adults. Object relations approaches and short-term psychodynamic therapy are widely used to treat individuals who suffer from personality disorders.

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Karen Wolford

See also:

Abnormality; Amnesia, Fugue, and Multiple Personality; Antisocial Personality; Behavioral Assessment and Personality Rating Scales; Borderline, Histrionic, and Narcissistic Personalities; Hypochondriasis, Conversion, Somatization, and Somatoform Pain; Projective Personality Traits; Psychoanalysis.

ABNORMALITY
Sociocultural Models

Type of psychology: Psychopathology; social psychology
Fields of study: Models of abnormality

A sociocultural approach to abnormal psychology examines how cultural factors determine what behavior is labeled abnormal within different societies; in addition, it investigates how societal values promote certain types of psychological abnormality.

Principal terms

CROSS-CULTURAL RESEARCH ON ABNORMALITY: a comparison of different cultures' practices of labeling behavior as abnormal

CULTURAL FACTORS: the standards and expectations of a particular society that influence the labeling of behavior as abnormal

PSYCHIATRIC DIAGNOSIS: the label applied to an individual whose behavior is thought to be the result of a specific mental disorder

STEREOTYPIC GENDER ROLES: a society's expectations of individuals' behavior based on their gender

STIGMATIZATION: the practice of discrediting or discriminating against someone because of a past or present psychological disorder

Overview

A sociocultural viewpoint of abnormality is one of several approaches used in attempting to explain the causes of abnormal behavior. Unlike other approaches to abnormality, this perspective places great emphasis not only on the causes of abnormality but also on the reasons behind why certain behaviors are labeled abnormal. Supporters of this approach assert that cultural factors are at work within each society determining why certain behaviors are considered normal while others are not. Therefore, a sociocultural perspective uses research from areas such as anthropology, sociology, and political science as well as psychology in studying abnormality.

There is a large range of opinion regarding what should be considered abnormal behavior even among those who take a sociocultural viewpoint. Certain investigators consider the concept of psychological abnormality to be a complete myth. Thomas Szasz and R. D. Laing, both psychiatrists, are two examples of such individuals. Szasz, in *The Myth of Mental Illness* (1961), rejected the idea that people have mental illnesses in the same way that individuals have physical disorders such as cancer or heart disease. Szasz contended that behavior said to be the result of mental illness is nothing more than an individual's way of managing the problems of living.

R. D. Laing expressed a similar viewpoint and extended it to the condition of

schizophrenia. Considered by most mental health professionals to be one of the most severe psychological disorders, schizophrenia is characterized by symptoms which include auditory or visual hallucinations (hearing voices or seeing visions of people or things not physically present), delusions (beliefs not based in reality), and deterioration in areas such as work or school, interpersonal relationships, and hygiene. Laing asserted that certain individuals enact these schizophrenic symptoms as a reasonable response to an unreasonable living situation. That is, individuals who are diagnosed as schizophrenic perceive their current environment as unlivable and face it by adopting schizophrenia. Laing concluded that these individuals are diagnosed as schizophrenic because of their violation of particular social standards, not because they have an underlying physical disease that causes their behavior (Richard Evans, 1976).

Most investigators who endorse a sociocultural view of abnormal behavior are not as radical as Szasz or Laing. More moderate advocates of a sociocultural perspective do not deny the existence of factors other than societal standards (for example, biological influences) that cause the development of abnormality. The goal of sociocultural researchers, however, is to illustrate how societal standards dictate what behavior is labeled abnormal.

Cross-cultural investigations are one way of examining the influence that societal factors have on determining the behaviors which are considered abnormal. Cross-cultural research has shown that societal factors are important in determining not only what is diagnosed as psychologically abnormal, but also what is labeled physically abnormal. For example, dyschromic spriochaetosis, a disfiguring disease characterized by multicolored spots on the skin, is so common among members of a South American tribe that those who do *not* have it were long considered abnormal. To a greater extent, societal standards also determine which behaviors are considered psychologically abnormal. For example, until recently, every winter near the southeastern Canadian region of the Saint Lawrence River, male residents of all ages engaged in a yearly ritual of clubbing to death baby seals for their pelts. Even though more humane ways were available to kill the seals, citizens of this region viewed clubbing the seals to death as normal because of the tradition surrounding the practice. This treatment of animals within most parts of American society would be considered cruel, and it is likely that those who participated in it would be labeled as abnormal. In summary, cross-cultural studies demonstrate that what is considered abnormal behavior differs across societies depending on the values and customs of a particular culture.

The sociocultural approach proposes that, across different societies, there are certain types of action likely to be viewed as abnormal. One type of conduct that is likely to be viewed as abnormal is behavior that violates societal expectations. Each society has expectations about what is appropriate and inappropriate behavior for a given setting. For example, if in the middle of a college lecture a student were to strip down to a bathing suit, most Americans would believe that this behavior was the result of a psychological disorder. If the same student were to undress in a similar fashion on a public beach, however, minimum disruption would occur, and few, if any, fellow sunbathers would consider this conduct

abnormal. This example illustrates how a particular society's expectations regarding what is appropriate behavior for a particular situation determine what is considered normal or abnormal.

A second type of behavior likely to be termed abnormal is behavior that is disturbing enough to others that they want it changed (Leonard Krasner, Author Houts, and Leonard Ullmann, 1992). Children who are diagnosed as having attention-deficit disorder (ADD) would fit this criterion. In the classroom, ADD children have difficulty remaining seated and waiting their turns, often blurt out answers, talk excessively, and do not follow instructions. These behaviors are often so disturbing to their peers and teachers that children who engage in them are frequently referred to mental health professionals because they are considered abnormal and in need of treatment.

A final type of behavior that is likely to be labeled abnormal is behavior that appears irrational, self-defeating, or maladaptive. For example, imagine the reaction most people would have if they were to view a man walking along a downtown street, shabbily dressed and foul smelling, and talking to himself about Martian invaders sent to Earth to steal his mind. It is likely that most observers of this individual would consider him to be crazy. In this connection, persons who exhibit the symptoms of schizophrenia, as illustrated in this example, seem to most observers to be engaging in actions that are irrational and maladaptive.

Applications

Researchers who advocate a sociocultural perspective are very concerned with the potential weaknesses and misuses of labeling certain people abnormal. Psychiatric diagnoses are obtained through a psychiatrist's or other mental health professional's labeling of someone as having a mental disorder based on that person's reported or observed behavior. In practice, diagnosing involves taking the reported and observed behavior of an individual and comparing it to the conditions listed in the American Psychiatric Association's *Diagnostic and Statistical Manual of Mental Disorders*, or DSM; new editions are published periodically. The manual contains a sanctioned system for diagnosing behavior. A now-classic study conducted by David Rosenhan, "On Being Sane in Insane Places" (1973), demonstrated several potential problems with correctly diagnosing people as psychologically abnormal. In Rosenhan's experiment, he and seven associates from Stanford University presented themselves to mental hospitals under false identities and complained of hearing voices saying "empty," "hollow," and "thud." All eight were admitted to the hospitals; seven were diagnosed as schizophrenic, and the eighth person was diagnosed as having another severe psychological disorder. After being admitted to the hospital, the pseudopatients behaved as normally as they did before their admission and stopped complaining of hearing voices.

During their hospital stay, some of the patients recorded information in notebooks. This note-taking behavior, as well as other normal behavior, was listed in their medical records as further evidence of their mental disorder. In spite of their normality, the average patient was hospitalized for nineteen days and typically released with the diagnosis of "schizophrenia in remission." That is, although the

pseudopatients did not exhibit schizophrenic behavior at the time of their discharge, they were labeled as having an underlying psychological disorder that could recur in the future. Rosenhan's study illustrates several potential limitations to declaring people abnormal. First, people are often labeled as abnormal with insufficient supporting evidence. Second, once a person is designated as abnormal, much of his or her behavior, whether otherwise normal or not, is seen as part of his or her abnormality. Third, the label of being abnormal is difficult to discard. That is, even though the pseudopatients were discharged, they were released carrying psychiatric diagnoses.

In addition to the potential problems with accurately diagnosing abnormality, the label of abnormality is often intentionally used to harm or discredit individuals. One graphic example of how the concept of psychological abnormality has been misused is the practice of leaders in some countries diagnosing political dissidents as mentally ill in order to banish them to psychiatric hospitals for "treatment," thus silencing their protests. Andrei Sakharov, regarded as a prominent nuclear physicist within the Soviet Union until he began to criticize the Communist party, wrote about how political opponents of the Communist government were often diagnosed as schizophrenic and sent to mental hospitals. Once hospitalized, these dissidents often were given powerful psychiatric medications and kept from the public as a means of quieting their protesting.

In America, individuals diagnosed with psychological disorders such as depression may be refused access to benefits such as health insurance and employment. In addition, those diagnosed as having mental disorders are often stigmatized. Stigmatization is the practice of discrediting or discriminating against someone because of having a past or present psychological disorder. An example of stigmatization occurred in the 1972 presidential campaign, when Democratic vice presidential candidate Thomas Eagleton was pressured into withdrawing from the race because of the revelation that he had received treatment for depression.

In addition to pointing out the potential misuses of labeling someone as abnormal, sociocultural investigators are interested in identifying the larger societal influences responsible for creating behaviors that are labeled abnormal. Among these suggested sociocultural causes of abnormal behavior are factors such as stereotypical gender roles and poverty. Stereotypic gender roles are the types of behaviors and attitudes that are expected from individuals because they are either males or females. Each society has its own set of stereotypic gender roles. These expectations based on gender place both males and females at higher risk for exhibiting different types of abnormal behavior. For example, males are at much higher risk to develop pedophilia, a disorder characterized by recurrent sexual arousal toward children, and frequently accompanied by attempts to have sexual relations with children. A sociocultural perspective on pedophilia would highlight the cultural factors that promote pedophilia, such as society's frequent depiction of men as dominating women and children, and the belief that men have a right to satisfy their sexual desires even at the expense of others.

Women also are at greater risk for developing certain psychological disorders as a result of particular cultural factors. For example, women are approximately

nineteen times more likely than men to develop anorexia nervosa. Anorexia nervosa is an eating disorder in which the individual is extremely underweight because of self-imposed starvation, sees herself as fat even though she is underweight, and is fearful of becoming obese. One prominent sociocultural factor that is suggested as making women more vulnerable to developing anorexia is society's emphasis on women being thin in order to be considered attractive. A study by David Garner and colleagues, published in 1980, illustrated this increased emphasis on thinness within today's society by analyzing the weight of women depicted in *Playboy* centerfolds from 1959 to 1978. The results of this analysis revealed that the average weight of the centerfolds decreased significantly over the twenty-year period. This finding indicated that the ideal woman, as defined by Western society, has become thinner even as the weight of the average American woman has continued to rise. Supporters of a sociocultural viewpoint state that these contradictory events have placed women under pressure to be thin even at extreme costs to their health and happiness.

Poverty is another sociocultural factor that places particular members of society at greater risk for developing psychological disorders. For example, children reared in impoverished environments experience an increased number of stressful events such as witnessing violence. This high level of stress increases the likelihood that these children will develop psychological disorders such as post-traumatic stress disorder (PTSD). PTSD develops as a reaction to a traumatic stressor (for example, witnessing the murder of one's parents) and consists of symptoms such as experiencing recurrent nightmares regarding the traumatic event, withdrawing from one's family and friends, and having difficulty concentrating.

Perspective and Prospects

The sociocultural approach to examining abnormal psychology was spurred on by criticisms made by Thomas Szasz and R. D. Laing in the early 1960's. Both these men had personal reasons to react against the practice of labeling people as psychologically abnormal. Laing was aware that some of his own personal experiences would be considered by many to be abnormal. For example, Laing reported that he was able to sleep one hour a night for a week's time, without the use of drugs, by altering his own state of mind. Laing also described his participation in mystical experiences of altered consciousness which he regarded as similar to a schizophrenic's hallucinations. Because of his own experience of altered states of mind and his realization of his normality, Laing was adamant in his denunciation of assigning labels to people whose behavior is different from that of the typical person.

More recently, those offering a sociocultural perspective on abnormality have grown concerned over the increase in the number of labels available to diagnose someone as having a mental disorder. Between the introduction of the first edition of the *Diagnostic and Statistical Manual of Mental Disorders* in 1952 and its third revised edition in 1987, the number of psychiatric labels roughly tripled, from approximately one hundred to three hundred. Not by coincidence, sociocultural advocates contend, the number of mental health workers increased fourfold during

the same approximate time period. This suggests that the rapid expansion of diagnostic labels has greatly added to the number of people who can be labeled abnormal, thus creating an increased market for mental health professionals.

As a consequence of the proliferation in the number of diagnostic labels, the number of people being diagnosed as suffering from a mental disorder also has increased. Sociocultural advocates are concerned with this trend, given the possibility that someone may be discriminated against because of being diagnosed as mentally ill. The potential stigmatization that could occur as a result of being labeled mentally ill should give all reason to reflect on the usefulness and validity of the current practice of psychiatric labeling.

In addition to its important criticism of the manner in which people are often diagnosed as abnormal, the sociocultural approach is useful in that it alerts individuals to societal pressures that might promote psychological disorders. An awareness of these societal pressures allows for the initiation of efforts to prevent the development of certain psychological disorders. For example, if it is acknowledged that society's overemphasis on thinness for women is behind certain women developing anorexia nervosa, then steps such as educational efforts within school systems can be taken to challenge the attitude that women must be thin to be attractive.

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R. Christopher Qualls

See also:

Abnormality; Abnormality: Behavioral Models; Abnormality: Biomedical Models; Abnormality: Psychodynamic Models; Community Psychology; Madness: Historical Concepts.

Addictive Personality and Behaviors

Type of psychology: Psychopathology
Fields of study: Attitudes and behavior; critical issues in stress; substance abuse

The effects of an addictive personality are harmful to the afflicted individual and are often harmful to others. Addictive behaviors seem to be at least partly caused by a need to self-medicate and by low self-esteem; study of these behaviors involves attempts to identify, predict, and treat them.

Principal terms

ADDICTION: a condition of slavery to a habit, or a very strong inclination concerning it
COMPULSION: an impulse that is difficult to resist
DEPENDENCY: the state of relying on another for support or existence
OBSESSION: a compelling idea or feeling, usually irrational, over which a person has little conscious control
PERSONALITY: the total physical, intellectual, and emotional structure of an individual, exhibited through consistent patterns of behavior
SYMPTOM: a sign or indication of a problem; it is not necessarily noticeable to the untrained individual

Causes and Symptoms

Some researchers have asked whether there is a single psychological predisposition or a multilevel series of complications involved in the addictive personality—or whether virtually any personality is vulnerable. Researchers administering the Minnesota Multiphasic Personality Inventory, an objective personality test, to addicted individuals have found that they have distinctive personality traits; sometimes these traits precede the addiction, and sometimes they seem to be caused by or exacerbated by the addiction. These findings are highly controversial and have fueled many heated discussions.

A surplus of aggressive energy seems to be at the core of most addictions. Indulgence in the addictive behavior is accompanied by the release of aggressive impulses, resulting in a feeling of euphoria. This feeling of relief is then associated with the outlet used, and it seduces the user to attempt a duplication of the original process, thus reexperiencing the euphoria.

Inadequate self-esteem is another psychological predisposition thought to be a common source of imperceptible pain, and the inability to handle the pain can lead to striving for a pain-reducing outlet. The addictive personality seems to have the desire to control the pain but lacks the necessary social, psychological, and biological tools to follow through. Other symptoms of the addictive personality that show up early enough to allow preventive measures to be taken include poor

impulse control; intolerance and low frustration level, leading to a need for control; a strong sense of denial in everyday situations; and rigidness and extremes in action and thoughts.

Psychic and/or physical dependence on a release can occur. This dependence can take the form of an addiction to drugs, food, work, sex, gambling, exercise, or any number of other compulsive behaviors. Problems such as manipulation, denial of responsibility, displacement of emotions, and general dishonesty in lifestyle may provoke the process. The addictive process can be periodic, cyclic, sporadic, or continuous, depending upon a person's life patterns.

Different personality theories have conflicting ideas on addiction, adding to the controversy surrounding this topic. The psychoanalytic group believes that the addictive personality is a result of unconscious conflicts and of fixation on the pleasure principle, which states that one's energy in life is directed toward reducing pain and that one's innate drives control one's actions. Although some neo-Freudians disagreed with the cause of the pain, most agreed with the basic concept. Social learning and behavioral psychologists believe that an addictive personality is molded through shaping—the slow and continual development of a behavior, with continuous reinforcement along the way, based on the social mores prevalent when the individual grew up. The need to be accepted becomes the driving force.

The cognitive group holds that an addictive personality is formulated by the way a person receives, processes, stores, and retrieves information received through the senses. If the action taken produces a positive effect, then the person is likely to repeat the process so that the effect can be duplicated. In essence, people become addicted to the pleasurable results before they become addicted to the particular path taken to achieve them. The humanistic group concentrates on the here and now, focusing on the fact that people have choices, yet many people do not know how to make them because of a trauma they experienced while growing up. To the humanist, the idea of the family becomes very important, particularly how love was expressed and experienced, because through love, a person can believe in himself or herself enough to be able to make a positive choice. The proponents of trait theory contend that people are born with certain tendencies and preferences of action, which may or may not be genetic; the evidence is inconclusive. Trait theorists seem to agree, however, that society and the family have a strong influence on people and that some people are predisposed toward compulsive behavior from an early age.

Biological studies have been conducted to explore the suspected link between addictive behavior and genes, suggesting that, at least in part, the addictive personality may be inherited. Studies suggest that certain people may have inherited an impaired neurological homeostasis, which is partly corrected by their addiction—such as to alcohol. The sons of alcoholic fathers have a higher "body sway" than do nonalcoholics; it decreases when they are intoxicated. Sons of alcoholics have a higher rate of addiction than do daughters, no matter which parent reared the children.

People with "familial essential tremor," an inherited disorder, have less tremor when drinking and have a higher rate of alcohol dependence. Also, while alcohol-

dependent people do not have higher levels of arousal at rest, they become more aroused when stressed, as measured by heart rate, and are slower to return to rest.

Other studies have suggested that people who are at high risk have abnormal brain-wave activity, suggesting an inability to concentrate or a reduced brain capacity. High-risk people have shown normal to slightly above normal intelligence quotient (IQ) test scores, but low scores on verbal subscales and attention. They also show delayed language development. Moreover, they seem to produce a heroinlike tranquilizing substance which is released and soothes the person when using an addictive substance or pursuing addictive behavior.

The majority of controlled scientific studies on genetics have been conducted on the alcoholic population; because of this, they are inconclusive when discussing the addictive personality overall. They do, however, add evidence to the possible link between biology and behavior.

It seems clear from the research that addiction is a multilevel problem with complex roots, dispersed throughout psychology, sociology, biology, and genetics. A look at three of the symptoms of this disorder will help provide a clearer picture of the observable behavior that results from whatever combination of earlier experiences and inherited traits causes it. Among the symptoms of addictive behavior are a strong need to self-medicate, low self-esteem, and a tendency toward excessiveness.

A strong need to self-medicate, or to stop the pain, seems to be found in most addicts. Whether the pain is real or perceived does not seem to matter; most addicts have both a low tolerance and a strong need to get their way, which reduces the pain for them.

This tendency can be traced back to childhood and used as a warning sign so that an effort can be made to alter the child's first impulse and slowly, over time and with much positive reinforcement, show the child alternative, acceptable behavior. When the child can be taught to achieve the self-medication in a positive way, according to his or her society, there is a better chance for positive achievement as an outcome. Sigmund Freud called this mechanism sublimation—the rechanneling of a socially unacceptable trait or feeling into a socially acceptable outlet. As an example of self-medication, Alice, a five-year-old child in a typical suburban community, is experiencing considerable anxiety because of going to school for the first time. She is swinging her legs back and forth while she sits in her chair as her mother speaks to the teacher on the first day. Her fingers encircle her thumbs and her head is down. The swinging of Alice's legs is a form of self-medication to relieve the anxiety of starting school; it is perfectly normal in this situation and is appropriate for a child of Alice's age.

If this same self-medicating style shows up in other areas of Alice's life, however, in less appropriate situations, then it becomes a symptom and deserves to be watched. At this time, steps can be taken to help Alice feel more confident, which could relieve much of the anxiety and could reduce the need to self-medicate. Children's body language can tell much about their inner feelings and give adults time to alter a potential problem before it gets out of control.

If it is not addressed at this time and Alice is allowed to get into the habit of

self-medicating in this relatively harmless way, she may develop a tolerance for this behavior; as she approaches puberty, she might change her habits to include more powerful self-medicating forms such as alcohol, sex, or overeating, which may also be more popular with her age group. She would then need to be taught socially appropriate tools to handle her anxiety. As one can readily see, the deeper the anxiety, the more powerful the self-medicating outlet, and the more difficult it is to turn around.

Another warning sign that seems to appear most of the time in addictive people is low self-esteem. Research has shown that self-esteem is based on a gradual shaping of many small experiences into a general feeling of power—the ability to have a positive effect on one's environment and the people within it. The addictive person translates a feeling of powerlessness into pain, and then must self-medicate to alleviate this condition.

The channel taken to ease the pain may be the one that is easiest to reach or that is most acceptable in the social group that surrounds the individual or that the individual wishes to enter. Therefore, the addictive personality may reach out through work, gambling, sex, eating, dieting, substance use, exercising, competition, or many other ways that can eventually get out of control and lead to destructive patterns of behavior. Self-esteem, or a general feeling of worth, begins at birth. (Some say that it begins while the child is still in the womb, around the sixth or seventh month, but this idea is controversial.)

Children seem to pick up the behaviors and concepts shown them by the society in which they grow up. Socially, a child becomes what society teaches him or her to become. Sarah, for example, is one of three children being reared by an upwardly mobile family interested only in what is best for their children. All her life, Sarah has received a double message: "I love you when you do what I want, and I am disappointed with you when you do what you want to do."

Sarah, like any healthy child, wants to please her parents, so she concentrates on doing what they want; however, it does not seem to be enough, and over the years she begins to numb herself from the pain of rejection and failure. She begins to believe that she is not worth loving, except when she does what others want—and when she does, it is not enough, so she does not see why she should bother. She looks for a group outside her home that will accept her for who she is, or she withdraws or becomes defiant in order to get attention. Sarah is now vulnerable to any self-medicating outlet that comes her way, as she seeks to relieve the pain of her perceived rejection. It does not matter if the pain is justified or is falsely perceived; to the addictive personality, it is real and must be soothed. Sarah's siblings may not experience their family or surroundings in the same way and therefore may not have the need to self-medicate; not all children in an addictive family follow addictive behavior patterns.

Another precursor to addictive behavior seems to be an ever-growing need to get a little more from whatever task is giving one pleasure at the time; this has been called excessiveness, and it is a controversial issue. Many therapists have heard clients discuss a seemingly insatiable appetite for pleasure, in whatever form; they do not know when to stop and simply feel gratitude for the pleasure they have

experienced. In the beginning of most addictions, there is sufficient relief to encourage the further use of an acquired outlet, whether it be positive or negative at this time. Because addictive people have a strong sense of denial, they seem to be unable to envision the inevitably destructive phase of their choice for relief.

One question that arises regarding excessiveness is how to teach a person balance when American society in general does not know how to achieve this goal. The United States has been called a nation of overachievers for profit, success, and power. People are rewarded highly for these motives and are considered well-adjusted by their fellow citizens if they achieve them. A problem arises when one considers that addictive personalities are a mass of excessive desires to begin with. They lack impulse control, and there is a strong need to achieve self-validation any way they can.

A thirteen-year-old boy who is growing up in a city atmosphere finds that there is constant stimulation and temptation around him. A normal, healthy boy wishes to be accepted by those who are important to him, and he wishes to have fun. In a city, stimulation is vast, and inappropriate stimulation may easily be overpowering to a child who lacks impulse control, may have a low self-esteem, and probably has already found a way to self-medicate. Even to a thirteen-year-old child without addictive personality tendencies, city stimulation can be overpowering. Some researchers say that at age thirteen, life in general is overpowering and that the child needs strong but nurturing guidance. At this age, a child will look to society for guidance and approval; in his or her role models is the hope for the tools necessary to create a balance between what is available and what the child needs in order to function and mature.

Treatment and Therapy

A concentrated effort was made in Ohio in 1935 by Robert Smith and William Wilson to help the addictive personality through the organization of Alcoholics Anonymous (AA) a self-help group of alcoholics in various stages of recovery.

The success of Alcoholics Anonymous is world renowned, and it is considered by most professionals and nonprofessionals who have contact with it to be one of the more complete recovery programs in the world. The twelve-step program, an idea that AA started, transcends the boundaries of alcohol abuse and has been applied to many addictions. AA is run by recovering alcoholics who are nonprofessionals—simply individual humans helping others. Yet it was not until the early 1970's that addictive people gained national and international attention.

In 1971, the National Institute on Alcohol Abuse and Alcoholism conducted research that showed addiction to be threatening American society. A concentrated effort was made to study the addictive person and attempt to find symptoms that could predict high-risk individuals. The federally funded studies, it was hoped, would find ways to help prevent and reduce the tremendous health, social, and economic consequences of addiction in the United States. Assessing dependence potential and discovering vulnerability or high-risk factors through demographic characteristics, psychological status, and individual drug history became its focus. The funding of these studies has become a critical component in the fight to better

understand the addictive personality. National programs were begun to attempt to show individuals and communities how to deal with the behavioral aftermath of addictive thinking.

David M. Murco, of the Psychiatric Research Center, University of Maryland School of Medicine, and Lawrence J. Hatterer, a psychiatrist at New York Hospital, Cornell Medical Center, both leaders in the area of addictive personalities, have obtained similar findings in their individual research. They conclude that neglect from parents, absence of family support, and inconsistent or permissive behavior on the parents' part can place children in the high-risk category. With the further sophistication of genetic studies, researchers are slowly compiling an addictive profile which may lend itself to early intervention and prevention.

Perspective and Prospects

Addictions and their victims have been studied and described at least since the beginning of written language, and probably since humanity first communicated by storytelling. Fascination with the idea of an addictive personality and related behavior dates back to 950 B.C., to the works of Homer, the Greek poet, and perhaps before that to the writings of Lao-tzu, a Chinese philosopher and imperial adviser. These men studied human nature and sometimes wrote about the uncontrollable allure of certain desires which led to behaviors that were likely to cause personal and cultural destruction.

The implications of the effect on society of negative addiction are far reaching. Each year more accidents are being caused by people who are under the influence of alcohol or other drugs; more strokes and heart attacks are caused by overwork, lack of sufficient exercise, and improper nutritional habits. More babies are being born addicted than ever before. On the other hand, there is the idea of a positive addiction, or compulsive behavior that actually enriches the individual and the society in which that person lives. (Even this behavior can get out of control when a person who has problems with setting healthy limits attempts to use it.)

Whether addictive behavior is learned for survival, genetically passed on, or an intricate combination of both, there appears to be a set of symptoms which can predispose a person toward addiction—or, at the least, can place a person in a high-risk group. If these symptoms can be identified early enough, the chance to teach potential addicts the path toward balance increases, and the compulsive lifestyle can be decreased or channeled in a healthy way. Yet it does seem that American society values addictive behavior in the form of overachievers and rewards them accordingly, therefore actually encouraging a form of addiction. As long as addictive behavior is encouraged in any form, there will be a part of the population that has trouble differentiating excess from balance.

Internationally, it has been surmised that advanced, technological societies seem to give rise to more kinds of dependency than do more slowly developing countries, a fact which could help researchers focus on some societal misconceptions of overall health. For example, in the United States and some other technologically advanced societies, there seems to be a belief pattern, propagated by the mass media, that supports instant gratification. If one is tense, one should take a pill; if

one is lonely, one can call a certain number for conversation. If one is bored, have an alcoholic drink. If one wants to be part of the in-crowd, smoke; if one is unhappy, eat. People who are addicted to a negative anxiety releaser have been described as "committing suicide on the installment plan." Societies, governments, and researchers must unite in a desire to unveil all possible symptoms of addiction, to identify those at high risk toward them, and to employ successful recovery methods.

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Frederic Wynn

See also:

Alcoholism; Codependent Personality; Substance Abuse.

AGGRESSION
Definitions and Theoretical Explanations

Type of psychology: Social psychology
Fields of study: Aggression

Aggression is conceptualized as a diverse category of behaviors that are intended to injure or harm another. Psychological theories of aggression seek to explain, and ultimately to control, people's hostile or antisocial behaviors. Generally, psychological theories address the relative influences of biological factors (such as aggressive instincts or physiological arousal) and situational factors associated with aggression in animals and humans.

Principal terms

CATHARSIS: a reduction of psychological tension and/or physiological arousal

DEFENSE MECHANISM: according to Sigmund Freud, a psychological strategy by which an unacceptable sexual or aggressive impulse may be kept from conscious thought or expressed in a disguised fashion

DISPLACEMENT: according to Freud, a defense mechanism by which a person redirects his or her aggressive impulse onto a target that may substitute for the target that originally aroused the person's aggression

HOSTILE AGGRESSION: aggressive behavior that is associated with anger and is intended to harm another

INSTINCTIVE AGGRESSIVE BEHAVIOR: aggressive behavior that does not result from learning experiences; such behavior is expressed by each member of a species with little variation in its expression

INSTRUMENTAL AGGRESSION: aggressive behavior that is a by-product of another activity; instrumental aggression occurs only incidentally, as a means to another end

SUBLIMATION: according to Freud, a defense mechanism by which a person may redirect aggressive impulses by engaging in a socially sanctioned activity

Causes and Symptoms

Aggression is any antisocial behavior that is harmful or injurious to another. This may include overt physical and verbal behaviors (for example, firing a gun or screaming at someone in anger) as well as nonverbal behaviors, such as the display of obscene gestures. Psychologists consider aggression to be a category of diverse behaviors under which two subordinate categories of behaviors can be subsumed. The first category, instrumental aggression, consists of aggressive behaviors that are simply a means to another end. Hence, the primary goal of instrumental aggression is not necessarily to injure another person; aggression is used to attain

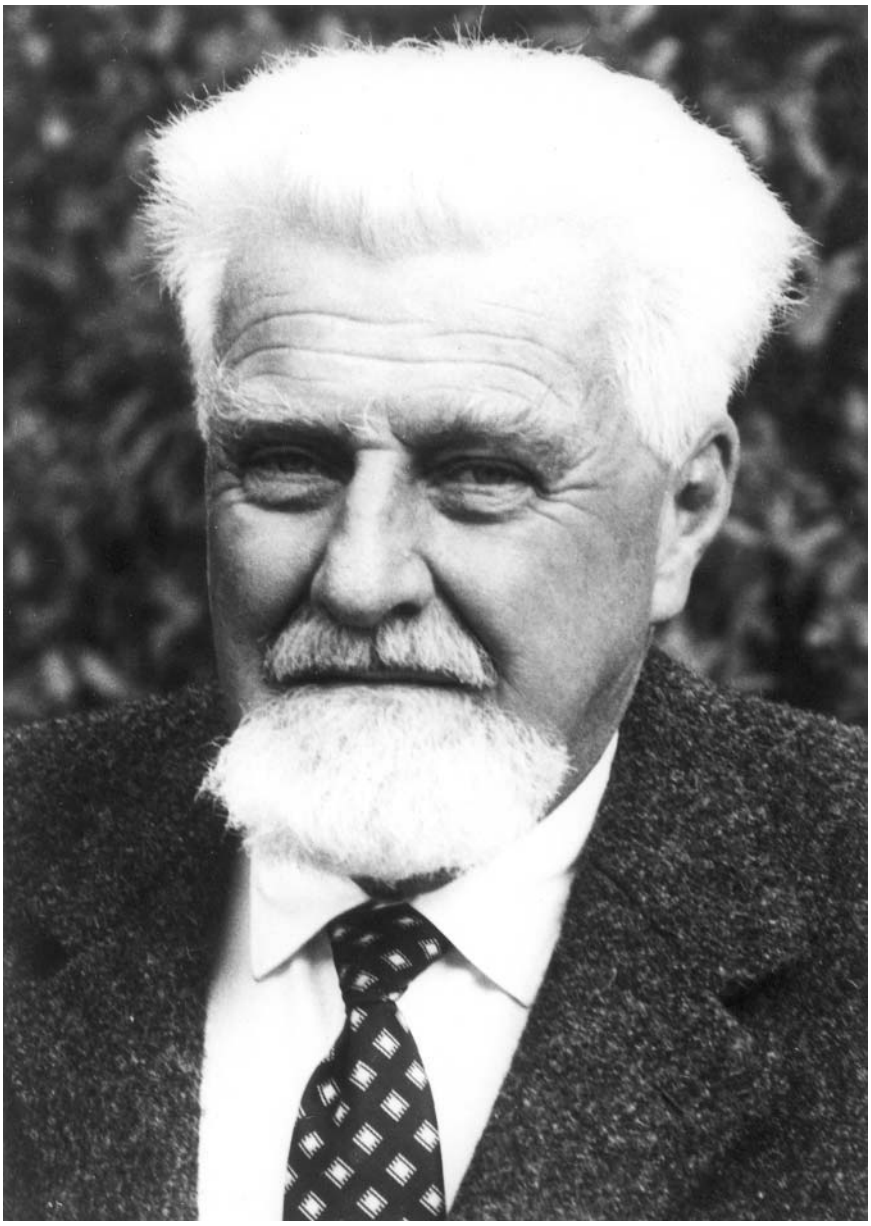
a desired outcome. For example, a soccer player might knock her teammate down as they both run to tackle a ball. The girl's aggressive behavior was not intended to harm her teammate; rather, her goal was to gain possession of the ball and to score. The second category, hostile aggression, is often the result of anger, and its sole purpose is to injure or harm its target. Hostile aggression includes cases of physical assault, verbal abuse, and other antisocial behaviors. Most of the theoretical perspectives and empirical studies of aggression in psychology are concerned with hostile aggression.

There are three major psychological perspectives on aggression. The first perspective adopts a strongly biological stance on the development and maintenance of aggression in the human species. The second perspective takes the position that aggression is a result of the buildup of psychological frustration. The third perspective argues that aggression is a learned social behavior.

The first theoretical perspective, instinct theories, adopts the position that human nature includes an inborn drive for aggression. The ethologist Konrad Lorenz studied the instinctive nature of aggression in animals and humans. According to his work, aggression is a species-specific impulse that builds within the body and is eventually released by specific stimuli that elicit aggression. For example, an aggressive impulse might be unleashed by the presence of one's enemy. In some cases, however, the expression of this instinct may be inhibited by certain stimuli (for example, a parent may become angered by a child's behavior but not strike the child). Ethologists argue that the "babyish" facial characteristics of infants and young children serve as stimuli that inhibit the expression of aggressive behavior by adults.

Another instinct theory, psychoanalytic theory, posits that the seeds of aggression lie in the human personality. According to Sigmund Freud, a significant portion of one's unconscious psychological processes are governed by Thanatos. Thanatos, or the death instinct, is a reservoir of aggressive, and often self-destructive, tendencies that Freud considered to be part of the human species' evolutionary heritage. The psychic energy dedicated to Thanatos is thought to build over time until it is released in aggressive behavior. Periodic discharge, or catharsis, of this psychic energy is necessary for psychological health. Catharsis can occur either directly through overt aggression or indirectly through a number of disguised avenues. Many of Freud's defense mechanisms allow for a safe outlet of a person's aggressive impulses. For example, a man might be angered by his abusive employer's demands. Instead of accosting his employer directly, however, he might drive to his health club and "blow off steam" by sparring with a boxing partner. His aggressive urge is thus reduced through displacement of his aggressive impulse. As another example, an angry and sarcastic young girl may become a prosecuting attorney upon reaching adulthood. By aggressively prosecuting accused criminals and interrogating defense witnesses, a necessary part of her profession, this woman may be sublimating her aggressive tendencies.

The second theoretical perspective was introduced by John Dollard and his colleagues' early work investigating S-R (stimulus-response) theory. Their theory of aggression consisted of two simple propositions. First, aggression must always



Ethologist Konrad Lorenz studied the instinctive nature of aggression in animals and humans. (©The Nobel Foundation)

result from frustration. Second, frustration always leads to aggression. Thus, aggression was thought to be attributable to the thwarting of one's purpose or being prevented from attaining a valued goal. This theory, the frustration-aggression hypothesis, was later revised by Leonard Berkowitz, who argued that the frustra-

tion-aggression relationship was not quite so clear-cut. He posited that frustration simply makes a person ready to be aggressive. Aggression will result from frustration if, and only if, a cue for aggressive behavior is present. Aggressive cues are social stimuli, such as potential weapons, that have been associated with aggression in the past. Thus, the revised frustration-aggression hypothesis posits that aggressive tendencies will accumulate as a response to frustration. Catharsis is likely to occur when situational cues support an aggressive response.

The final perspective, social learning theory, emphasizes the role of social and situational factors in the learning and expression of aggressive behaviors. According to Albert Bandura, aggressive behaviors can be learned through two primary avenues, direct experience and observational learning. Learning by direct experience involves the actual enactment of aggressive behavior. If aggression is rewarded, then it is likely to recur. If aggression is punished, then it is likely to be suppressed, especially in the presence of the punishing agent. Observational learning, on the other hand, involves a process whereby people attend to the behaviors of people in their environment and the consequences of these behaviors. Bandura stated that people are most likely to attend to, and thus learn from, the behaviors of three salient model categories: families, subcultures, and the media. For example, a young boy may observe the aggressive behavior exhibited by the fellow members of his neighborhood gang. This modeling by other gang members not only may teach him novel behaviors but also may lower his inhibitions on being aggressive. Thus, when this boy becomes aroused by an aversive event, such as a taunt from a rival gang member, he will be likely to respond in an aggressive manner.

Treatment and Therapy

Much of the psychological research investigating the nature of aggression has been focused on the control of aggression. Of particular interest to researchers is the notion that allowing limited expression of low levels of aggression (catharsis) might play an important role in controlling the expression of high levels of aggression and antisocial behavior. The concept of catharsis is a central component of both psychoanalytic theory and the frustration-aggression hypothesis. Further, the idea of catharsis is intuitively appealing to many people who feel that periodically "blowing off steam" is important to positive mental health.

Psychologists Russell Geen, David Stonner, and Gary Shope designed a laboratory study to define the role that catharsis plays in aggression. In this study, male college students were angered and then administered electric shock by a confederate of the experimenters. When these subjects were allowed to retaliate against the confederate, they experienced a drop in their blood pressure (defined by the experimenters as a cathartic release). At this point in the experiment, the role of catharsis in moderating physiological arousal was supported. The experimenters, however, also wanted to know the effect of catharsis on subjects' subsequent behavior, so they next provided subjects with an opportunity to administer shocks to the confederate. Geen and his colleagues found that the subjects who had experienced catharsis (reductions in blood pressure) actually delivered higher

levels of shock to the confederate. Thus, while catharsis was reflected in decreased physiological arousal, it was associated with higher, not lower, levels of actual aggression. These researchers concluded that they were unable to find support for psychoanalytic theory or the frustration-aggression hypothesis, both of which would predict that catharsis would reduce subsequent aggression.

Laboratory studies have been subjected to a number of criticisms because they isolate people from their natural social environments and perhaps encourage the expression of artificial behavior. Laboratory studies of aggression are particularly vulnerable to such criticism, because they may provide subjects with a safe arena within which they may be encouraged to behave in an unnaturally aggressive manner. In response to these critics, many psychologists have studied the aggressive behavior of adults and children in typical social environments. Leonard Eron and his associates investigated the role that television might play in modeling aggressive behavior for a sample of elementary school children. First, the children's viewing habits were observed, to establish the nature of the programming they preferred and the amount of time they spent watching television. These children were followed up twenty-two years later to observe the effect their television viewing habits might have had on their behavior. Eron and his colleagues found that the amount of television these children had watched was significantly related to their level of aggressive behavior in young adulthood. The criminal records of certain children revealed that the more serious crimes were committed by the children who had been the heaviest consumers of violent television programming. The researchers interpreted these results to support social learning theory; that is, the media may be effective models of aggression, both immediate and long-term.

Proponents of handgun legislation point to studies such as these to argue for the control of privately owned firearms. They point to violent models in the media that may be related to the high rate of homicides in the United States. Additionally, they argue that the presence of a handgun itself may serve as a cue that elicits aggression and that the use of a handgun allows the aggressor to distance himself or herself physically from the victim. At firing range, the cues that elicit empathy and inhibit aggression are not so readily apparent. The influence of gun control on homicide rates was studied by a group of physicians led by John Henry Sloan. This team selected two cities for comparison. One city, Vancouver, British Columbia, had adopted restrictive handgun regulations. The comparison city, Seattle, Washington, was similar to Vancouver on a number of important demographic variables, but had no handgun control. The crime rates for both cities were compared for six years (1980 through 1986). Although the rates in both cities for burglary, robbery, and assault were not significantly different, the homicide rate was significantly higher in Seattle. They found that the citizens of Seattle had a 4.8 times higher risk of being killed with a handgun than did the citizens of Vancouver. These researchers concluded their report with the suggestion that handgun control legislation might reduce community homicide rates.

Perspective and Prospects

Early psychological theories of aggression were quite pessimistic in the inferences they made about human nature. Much of Sigmund Freud's writings about the nature of Thanatos and the expression of aggression in humans occurred against the backdrop of the two world wars that he experienced in Europe. Becoming increasingly pessimistic about human nature and civilization, he revised his theory of the libido to include not only the sexual instinct, Eros, but also the aggressive instinct, Thanatos. Other theorists of that time entertained similar views of aggression as an instinct. For example, social psychologist William McDougall included aggression in his taxonomy of innate human instincts.

During the 1930's John Dollard and his colleagues at Yale attempted to reformulate psychoanalytic theory by use of S-R theory. These researchers were concerned with the mentalistic nature of Freud's theory, and they attempted to test his propositions by reconceptualizing libidinal impulses as biological drives. The frustration-aggression hypothesis grew out of this research program and generated a considerable amount of empirical research for a number of years. Interest in this concept then flagged, for the most part, until the 1960's, when Leonard Berkowitz published his revised frustration-aggression hypothesis that acknowledged the important role of social cues in the instigation of aggression.

Berkowitz's revision of the frustration-aggression hypothesis reflected the increased focus of American psychologists on social learning theory. Albert Bandura's classic studies of the social learning of aggressive responses, published in the early 1960's were influential in two ways. First, they generated considerable empirical research. Second, they provided a theoretical framework and methodology by which the effects of a relatively new social phenomenon, television, could be studied. Since then, more than two thousand studies have looked at the role of television in the modeling and maintenance of aggression in adults and children.

That is not to say that the instinct theories have fallen into disfavor. Konrad Lorenz's influential book, *On Aggression*, published in 1966, again brought instinct theories into the public eye. His book captured the interest not only of the comparative psychologists who studied aggression in other species but of the general reading public as well.

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Cheryl A. Rickabaugh

See also:

Aggression: Reduction and Control; Antisocial Personality; Child Abuse; Domestic Violence; Juvenile Delinquency; Stress: Behavioral and Psychological Responses; Stress: Physiological Responses.

AGGRESSION
Reduction and Control

Type of psychology: Social psychology
Fields of study: Aggression

Aggressive behavior has been a problem for humans since before the beginning of recorded history. Psychologists have developed many theories of aggression, and there are many different ideas as to how—or whether—aggression might be controlled.

Principal terms

BEHAVIORISM: a school of psychology which holds that learning, centering on a stimulus, a response, and reinforcement, is central to behavior

CATHARSIS: the idea that experiencing aggression or violence vicariously will relieve an individual's aggressive drives

FRUSTRATION-AGGRESSION HYPOTHESIS: a concept pioneered by John Dollard stating that aggressive behavior is born of frustration in attempting to reach a goal

SOCIAL LEARNING THEORY: a theory introduced by Albert Bandura stating that behavior is learned by observing others model that behavior

SOCIOBIOLOGY: a field of biology that views behavior as being extensively based on inherited characteristics

Overview

Aggression has been humankind's steady companion throughout history—in life, literature, and art. Many hypotheses have been suggested by psychologists and other scientists concerning the nature of aggression; some have suggested that it is learned behavior, others that it is an innate, genetically inherited drive. The fields of ethology and sociology have mustered evidence to support the evolutionary (genetic) basis of aggression. Theories based on these viewpoints hold that at some point in humankind's past, aggressiveness was an adaptive trait—that is, aggression helped ensure the survival of the individual who possessed that quality, thereby enabling the aggressive trait to be passed on to future generations. Social psychologists, on the other hand, have studied the effects of modeling aggressive behavior. When children, for example, have been exposed to aggressive behavior modeled (acted out or demonstrated in some way) by others, they have shown an increase in aggressive behavior. In other words, the children observe and learn the behavior. Albert Bandura's social learning theory describes this concept of aggression.

The frustration-aggression hypothesis, as described by John Dollard, holds that both violence and aggression are the result of being frustrated in an attempt to reach a goal. When basic needs have been thwarted, aggression appears. As

Leonard Berkowitz stated it in *Roots of Aggression* (1969), "If a person is aggressive, he has been frustrated. If a person is frustrated, he has become aggressive." Negative environmental factors are also believed by many to have a major impact on aggression. Studies have found links, for example, between a high number of violent crimes and high air temperature. Overcrowding and economic hard times are also associated with higher crime rates. These studies tend to support negative affect theory, which holds that exposure to stimuli that create discomfort leads to aggression.

The amount of hope one holds for the possibility of reducing or controlling aggression depends, to some extent, on the theory of aggression that one believes to be most accurate. If aggressive behavior is an integral part of the genetic makeup of the human species, the outlook is not nearly as promising as it is if aggression is primarily a behavior learned from others and reinforced by certain rewards. In the former case, aggressive actions can perhaps be controlled by societal strictures, but the aggressive instinct will always remain within. In the latter case, decreasing the modeling of aggression or increasing the modeling of and rewards for nonaggressive behavior could conceivably produce effective results. Different studies have produced different results concerning the effectiveness of various attempts to reduce aggressive behavior.

Another complication in understanding and controlling aggression is that different people will react very differently when in similar circumstances. When frustrated, some people will react aggressively, while others will become withdrawn and depressed. Depression itself can lead to aggression, however, and this type of delayed aggression can produce seemingly unpredictable acts of violence. Psychologists simply do not have all the answers to why some people react aggressively and others do not when faced with identical predicaments.

Applications

Psychologists Matthew McKay, Martha Davis, and Patrick Fanning (1981) adapted Donald Meichenbaum's concept of stress inoculation training to produce one technique that allows an aggressive person to control his or her own aggressive behavior. McKay and his colleagues present simple, concise, step-by-step directions to deal with aggression. Since aggression is often fueled by emotional distress, they offer a technique of "covert assertion" through the development of two separate skills: thought interruption and thought substitution. When becoming angry or frustrated, the potential aggressor thinks of the word "stop" or some other interrupting device. The void suddenly created is then filled with a reserve of previously prepared positive, nonaggressive thoughts. This technique can be mastered, the authors maintain, if it is practiced conscientiously throughout the day for three days to a week.

The creation of an "aggression stimulants structure" gives the individual who is compelled to be negatively aggressive the opportunity to take a personal inventory of who (or what) the targets of his or her aggression are, what the feelings associated with those people are, and what would occur if a plan of "attack" against them were to be put into action. This type of analysis lends itself well to self-ac-

countability; it allows the individual to "own" the problem and to believe that it can be controlled if he or she chooses to control it. It also allows, through its identification of specific targets and imaging of the act of aggression, a global perspective on what can otherwise seem a very fragmented problem.

Aggression in the work environment can be damaging and disruptive both for individuals and for organizations. In an article in the *Journal of Occupational Psychology*, Philip L. Storms and Paul E. Spector (1987) claimed that high frustration levels of organizational employees were positively related to interpersonal aggression, sabotage, and withdrawal. Suggestions for dealing with aggression in the workplace have included such strategies as training courses and the use of humor to defuse tensions. Diane Lamplugh notes that aggression in this arena can range from whispered innuendo to harassment to violence. She maintains that a training course that focuses on tension control, relaxation techniques, customer-relations orientation, assertiveness practice, aggression-centered discussions, and self-defense training can be helpful. She also states that support from management in identifying problem areas and formulating guidelines for staff support is crucial. William A. Kahn promotes humor as a means for organizational members to make statements about themselves, their groups, or their organization. Humor, he notes, is a nonthreatening vehicle that allows people to say things that might otherwise insult or offend coworkers, thereby making them defensive and threatening working relationships.

Written or unwritten laws, rules, and codes of conduct are established in an attempt to curb unacceptably aggressive behavior. A company may terminate an employee who does not adhere to certain standards of behavior; athletes are benched for aggression or violence. Society as a whole formulates laws to control its members' aggressive behavior. When individuals act in ways that are damagingly aggressive to other people or to the property of others, law enforcement agencies step in to safeguard the population. Perpetrators are fined or sentenced to prison terms.

Studies disagree as to the most effective means of rehabilitating offenders, but many studies do suggest that rehabilitation is possible. One avenue that is frequently explored is the use of various techniques founded in behaviorism. In *Psychological Approaches to Crime and Its Correction* (1984), edited by Irving Jacks and Steven G. Cox, for example, Stanley V. Kruschwitz investigates the effectiveness of using a voluntary token reinforcement procedure to change the behavior of inmates who are difficult to manage. In the same volume, Albert F. Scheckenbach makes an argument for behavior modification as it relates to adult offenders. Modeling positive behaviors and holding group discussions have been found at least somewhat effective in rehabilitating juvenile delinquents, as has the development of behavioral contracts. John Lochman and his colleagues (1987), using what they called an "anger coping mechanism," explored cognitive behavioral techniques for reducing aggression in eleven-year-old boys. The boys treated with this procedure showed vast improvements—a reduction of disruptive classroom behavior and an increase in perceived social competence. Such techniques, used with young people, might reduce their high-risk status for later difficulties.

Perspective and Prospects

Acts of aggression have been central in human history, myth, literature, and even religion. In the biblical account, for example, humankind has barely come into existence when Cain kills his brother Abel. Almost as old are questions concerning the causes of aggression and the debate over how to control it.

Sigmund Freud saw aggression as the result of struggles within the psyche of the individual; the tension produced in the struggle between the life instinct and the death instinct creates outward aggression. Alfred Adler, another psychodynamic theorist, stated that aggression represents the most general human striving and is a necessity of life; its underlying principle is self-assertion. Humanistic theorist Rollo May notes that attention to aggression has nearly universally focused on its negative aspects. In *Power and Innocence* (1972), May wrote that "we have been terrified of aggression, and we assume—delusion though it is—that we can better control it if we center all our attention on its destructive aspects as though that's all there is."

It was first the behaviorists, then social learning theorists (such as Albert Bandura), who explored ways to reduce and control aggression. The frustration-aggression hypothesis, for example, was developed in the 1930's. Behaviorists tended to approach aggressive behavior in terms of stimuli, responses, and reinforcement. In a general sense, any approaches that seek to punish unacceptably aggressive behavior or to reward positive behavior are related to the behavioral view. Bandura and other social learning theorists found that, in some situations, children would respond to viewing aggressive acts by performing aggressive acts themselves. The implications of this have been widely argued and debated; one aspect concerns the effects of viewing television and motion-picture violence. Viewing violence on television does seem to cause increased aggressive behavior, although because of the nature of the types of studies most often performed, it can be difficult to draw unarguable cause-and-effect relationships.

The debate over whether aggression is learned, innate, or both (and, if both, over the relative importance of the two aspects) is not likely to end soon. Debates over how to control aggression will also continue. As in many areas of psychology, bridging the gap between the theoretical and the practical is difficult. As only one example, negative affect theory suggests that noxious environmental stimuli can produce negative emotions and, therefore, aggression; however, it is virtually impossible to remove such stimuli, except on a very small scale. Yet another area that will be increasingly explored is the relationship between aggression and biochemical factors. Studies have found correlations, for example, between aggressiveness and high levels of norepinephrine and low levels of serotonin, two important neurotransmitters. The significance of such chemical findings remains to be ascertained.

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Denise S. St. Cyr

See also:

Aggression: Definitions and Theoretical Explanations; Biofeedback and Relaxation; Stress: Behavioral and Psychological Responses; Stress: Coping Strategies; Stress: Physiological Responses; Stress: Prediction and Control.

Agoraphobia and Panic Disorders

Type of psychology: Psychopathology
Fields of study: Anxiety disorders; biology of stress

Panic disorder with agoraphobia is a condition characterized by the presence of severe anxiety attacks coupled with avoidance of a wide range of situations. Considerable progress has been made toward understanding its cause and treatment.

Principal terms

DEPERSONALIZATION: a feeling of unreality regarding oneself or one's body
DEREALIZATION: a feeling of unreality regarding the external world
FLOODING: prolonged and intense exposure to feared stimuli
HABITUATION: a process by which physiological or psychological responses decline in intensity with repeated stimulation
HYPERVENTILATION: overly rapid or deep breathing
PALPITATION: pronounced pounding of the heart
PARESTHESIA: numbness or tingling, particularly in the extremities
SOCIAL PHOBIA: a condition characterized by fear of the possible scrutiny or criticism of others

Causes and Symptoms

Panic disorder is a condition characterized by frequent panic attacks—that is, intense surges of anxiety. These attacks of anxiety often occur unexpectedly or "out of the blue"; the individual frequently is unable to identify an external trigger for them. Between attacks, the panic-disorder patient often ruminates about the possibility of additional attacks.

Panic attacks tend to be accompanied by a number of physical symptoms. Hyperventilation—overly rapid or deep breathing—is common, as are choking and smothering sensations, dizziness, faintness, and paresthesias—sensations of numbness and tingling, particularly in the extremities. Other common symptoms during panic attacks are sweating, trembling, nausea, abdominal distress, hot or cold flashes, accelerated heart rate, chest pain, and palpitations (feeling one's heart pound). Not surprisingly, many individuals who are having a panic attack believe that they are experiencing a heart attack.

Panic attacks are also frequently characterized by a number of psychological symptoms. Depersonalization and derealization are among the most common of these symptoms. Depersonalization is marked by feelings of unreality regarding oneself or one's body—sensations of being "disconnected" from oneself or of "watching" oneself as would an outside observer are frequent. Derealization refers to feelings of unreality concerning the external world; objects or people may seem

somehow "strange" or unfamiliar. Also common during panic attacks are fears of dying (for example, from a heart attack or stroke), losing one's mind, or performing embarrassing behaviors (such as screaming uncontrollably).

The difficulties of many patients with panic disorder do not end here, however; many, but not all, of these patients develop an often debilitating syndrome known as agoraphobia. Agoraphobia is a fear of situations in which escape is difficult, inconvenient, or potentially embarrassing, or in which assistance might not be readily available. Specifically, what appears to occur is that many panic patients, dreading the possibility of a future attack, begin to fear and (in many cases) avoid situations that might precipitate such an attack. The situations feared or avoided by agoraphobics are extremely varied, but they include public transportation, open spaces, shopping malls, supermarkets, large social gatherings, elevators, driving in heavy traffic, passing over bridges or through tunnels, standing in long lines, and sitting in crowded theaters or churches.

Possible Symptoms of Panic Disorder

- pounding heart
- sweating
- feeling weak, faint or dizzy
- numbness or tingling feeling in hands
- feeling flushed or chilled
- chest pain or smothering sensations
- sense of unreality
- fear of impending doom or loss of control
- fear of a heart attack or a stroke
- fear of losing one's mind
- fear of dying

In mild cases, agoraphobics may experience moderate discomfort while traveling or shopping alone, and may avoid those situations in only certain cases. In severe cases, agoraphobics may be unwilling to leave their houses unaccompanied. The fears of agoraphobics are generally alleviated by the presence of another individual, particularly one close to the patient. This is probably because this person would presumably be available to provide help in the event of an emergency, such as a heart attack.

The prevalence of panic disorder with agoraphobia in the general population of the United States has been estimated to be approximately 5 percent; an additional 2 percent have been estimated to have panic disorder without agoraphobia. Thus, panic disorder is relatively common and is perhaps the most frequent reason individuals seek outpatient psychiatric care. In addition, isolated panic attacks occur frequently among individuals in the general population. G. Ron Norton and his colleagues, for example, have found that approximately 34 percent of college students experience occasional panic attacks.

Panic disorder and agoraphobia have been reported to occur more frequently among females than males, although this difference is probably more marked for agoraphobia than for panic disorder. In addition, the prevalence of panic disorder appears to decline with age; its frequency has generally been reported to be highest among individuals under thirty and lowest among individuals over sixty-five. The course of panic disorder tends to be chronic but fluctuating. In other words, its symptoms often persist for many years, but they typically wax and wane depending upon the level of life stress and other factors.

In addition, panic disorder patients appear to have an elevated rate of several

medical conditions. A subset of these patients, for example, has been reported to have mitral valve prolapse syndrome (MVPS), a condition in which the heart's mitral valve bulges into the atrium. Because MVPS results in physical symptoms such as palpitations and chest pain, it may be a risk factor for panic disorder in some individuals. In addition, a subset of panic patients appear to have disturbances of the vestibular system, an apparatus in the inner ear responsible for maintaining balance. As dizziness is a common symptom of panic attacks, vestibular dysfunction may be an important precipitant of some panic attacks.

A number of psychiatric conditions are commonly found among patients with panic disorder and agoraphobia. Depression is a particularly frequent complication of both syndromes; in many cases it probably results from the distress produced by panic attacks and the constriction of activities produced by agoraphobia. This depression may have tragic consequences; panic disorder patients have been reported to be at greatly increased risk for suicide compared with individuals in the general population. In addition, many panic disorder patients turn to alcohol or other substances to alleviate their anxiety. Also commonly associated with panic disorder is social phobia, a condition characterized by fears of the possible scrutiny or criticism of others. Like panic disorder patients, many social phobics experience panic attacks. Nevertheless, in social phobia these attacks are almost invariably triggered by situations in which the patient is the perceived focus of others' attention.

A variety of models have been proposed for the causation of panic disorder and agoraphobia. Early explanations tended to focus largely or exclusively on physiological factors. In the 1960's, Donald Klein and his colleagues reported that panic disorder improved following administration of imipramine, a drug traditionally used to treat depression, whereas more sustained and long-lasting ("generalized") anxiety did not. Based upon this finding, Klein and his coworkers argued that panic is biologically distinct from other forms of anxiety. Although Klein's observation was important, it should be noted that making inferences about the nature of a disorder from the treatment of that disorder is logically flawed: A condition's treatment bears no necessary implications for its cause (for example, one would not be justified in concluding that headaches are caused by a lack of aspirin).

Nevertheless, it seems likely that physiological factors play an important role in panic disorder. Identical twins (who share all the same genes) with panic disorder are more likely than are fraternal twins (who share only half of their genes, on average) to have co-twins with panic disorder, suggesting that genetic factors play at least some role in this disorder. It is not known, however, whether these genetic factors predispose a person to panic disorder per se or to anxiety in general. In addition, there is evidence that the locus coeruleus, a structure in the pons (which is located at the back of the brain), is overactive during panic attacks. This is important because the locus coeruleus is a major center for norepinephrine, a chemical transmitter in the nervous system that appears to play a major role in the genesis of arousal and anxiety. Finally, it has been found that, in contrast to normals, many panic disorder patients develop panic attacks following infusion of certain substances, such as sodium lactate and caffeine. It is possible, however, that

this is simply attributable to greater arousal on the part of panic disorder patients; the infusion of these substances may provoke attacks in these patients because they are already on the verge of panicking.

Many subsequent models of the causation of panic disorder have attempted to move beyond physiological abnormalities to examine how panic disorder patients react to and construe their environment. One of the most influential of these might be termed the "fear of fear" model. According to Dianne Chambless, Alan Goldstein, and other proponents of this model, individuals who are afraid of their own anxiety are particularly prone to the development of panic disorder. During frightening experiences, this "fear of fear" can spiral into a panic attack.

A more recent theory of panic disorder is the "cognitive model" of David Clark, Aaron Beck, and other researchers. According to this model, panic attacks result from the catastrophic misinterpretation of unusual or unexpected bodily sensations. In other words, panic attacks may occur when a physical symptom (such as rapid heartbeat or dizziness) is misinterpreted as presaging a disastrous outcome (heart attack or stroke). Interestingly, many of the physical symptoms of anxiety, such a rapid heartbeat, can themselves be exacerbated by anxiety, as anyone who has felt his or her heart race uncontrollably while giving a speech can attest. Thus, the misinterpretation of certain physical sensations may set in motion a cycle in which these sensations progressively increase in intensity, giving rise to further misinterpretations and ultimately culminating in a panic attack. The cognitive model is also consistent with the evidence, mentioned earlier, that some panic patients have physiological abnormalities, such as MVPS and vestibular dysfunction. These abnormalities might be chronically misinterpreted by some individuals as indicative of serious consequences, and thereby provide a repeated trigger for panic attacks.

Treatment and Therapy

There is good evidence that many cases of panic disorder and agoraphobia are treatable by means of either medication or psychotherapy. Imipramine, as well as several other antidepressant drugs, appears to ameliorate the symptoms of these syndromes. It is not clear, however, whether these drugs actually exert their impact upon panic or whether they instead work by alleviating the depressive symptoms so common to these patients. Alleviating depressive symptoms may then provide agoraphobics with the energy and confidence needed to confront previously avoided situations.

Panic disorder and agoraphobia also are amenable to interventions involving confrontation with feared situations. For example, many panic patients improve following flooding, a technique involving prolonged and intense exposure to feared stimuli. In the case of panic disorder, the patient is typically exposed, in graduated fashion, to increasingly anxiety-producing situations. The patient is typically encouraged to remain in the situation until his or her anxiety subsides.

The efficacy of flooding and related treatments for panic disorder and agoraphobia can be explained in at least two ways. One possibility is that flooding works by a process known as habituation. Habituation is a process in which physiological or

psychological responses decline in intensity with repeated stimulation. For example, many parachute jumpers find that their anxiety reactions gradually decrease with each succeeding jump; habituation may be the basis of this phenomenon. A second possibility is that flooding works by means of the cognitive model. That is, prolonged exposure to feared stimuli may demonstrate to patients that these stimuli are not as dangerous as they had believed.

Perspective and Prospects

The term "panic" derives from the Greek god Pan, who let out a terrifying scream whenever he was awakened by passersby. Most of the earliest accounts of panic attacks emphasized their physiological nature. In 1871, Jacob DaCosta described a syndrome he termed "irritable heart," which was characterized by palpitations, shortness of breath, dizziness, and other symptoms now recognized as typical of panic disorder. DaCosta observed this condition both in Civil War soldiers and in individuals not involved in military combat. Irritable heart syndrome became a frequent diagnosis among anxiety-stricken soldiers in the Franco-Prussian and Boer wars. Other early terms for this syndrome were "effort syndrome" and "neurocirculatory asthenia"; again, both of these terms emphasized overexertion of the heart and circulatory system as the principal causes of panic symptoms.

At approximately the same time, Sigmund Freud was describing a syndrome he called "anxiety neurosis." Freud noted that this neurosis could occur in a diffuse, long-lasting form (what would today be called generalized anxiety) or in sudden, discrete attacks marked by symptoms such as excessive heartbeat and respiration (what would today be called panic disorder). In contrast to DaCosta and other writers of this period, Freud emphasized unconscious psychological factors as the primary determinants of panic disorder. According to Freud, anxiety attacks resulted from a massive damming up ("repression") of sexual impulses. In his later writings, Freud revised his position to assert that anxiety served as a signal to the individual that sexual impulses needed to be repressed. According to this later view, anxiety (including panic) is a cause, rather than a result, of the repression of sexual urges. Although many psychologists did not concur with Freud's conjectures, by World War II there was increasing appreciation that many of the panic reactions seen among soldiers were largely of psychogenic origin.

The term "agoraphobia" stems from the Greek *agora*, meaning marketplace. As noted earlier, however, although agoraphobics fear marketplaces and similar situations, their fears tend to be extremely varied. "Agoraphobia" was coined by Alexander Westphal in 1871, who observed that many patients experienced anxiety while walking across open spaces or deserted streets. Interestingly, Moritz Benedikt had observed a similar syndrome in 1870; he labeled in *Platzschwindel* (dizziness in public places), a term that presaged findings of vestibular dysfunction in some of these patients.

For many years, panic disorder and agoraphobia were believed to be two quite different, although often overlapping, conditions. In the third edition of the American Psychiatric Association's *Diagnostic and Statistical Manual of Mental Disorders* (DSM-III, 1980), for example, panic disorder and agoraphobia were listed as

separate disorders. Nevertheless, research has increasingly indicated that agoraphobia is, in most cases, a consequence of panic attacks. Therefore, in the 1987 revision of DSM-III, a new diagnosis called "panic disorder with agoraphobia" was christened.

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See also:

Abnormality: Behavioral Models; Abnormality: Cognitive Models; Anxiety Disorders; Cognitive Therapy; Phobias; Post-traumatic Stress; Stress; Stress: Behavioral and Psychological Responses; Stress: Physiological Responses.

ALCOHOLISM

Type of psychology: Psychopathology
Fields of study: Substance abuse

Alcoholism, the compulsive chronic or periodic drinking of alcoholic beverages, is a widespread substance-abuse problem that can lead to irreversible brain damage, other tissue damage, and death. It also causes crime and many fatal traffic accidents. The causes of alcoholism are not clearly understood; it can be arrested but not cured.

Principal terms

CIRRHOSIS: a chronic liver disease symptomized by destruction of liver cells and their replacement by nonfunctional tissue; it ultimately causes blocked blood circulation, liver failure, and death

DELIRIUM TREMENS: a severe alcohol withdrawal syndrome that includes anxiety attacks, confusion, depression, delirium, and terrifying hallucinations; as it worsens, tremors can develop

KORSAKOFF SYNDROME: alcohol-induced brain damage that causes disorientation, impaired long-term memory, and production of false memories to fill memory gaps

MANIC-DEPRESSIVE DISORDER: a psychiatric condition involving rapidly alternating manic elation and melancholic depression

NEURITIS: an inflammation of a nerve that causes pain, loss of reflexes, and muscular atrophy

PSYCHOSIS: any severe mental disorder characterized by deterioration of normal intellectual and social function and partial or complete withdrawal from reality

SUBSTANCE ABUSE: excessive use of any controlled substance—such as alcohol—that leads to physical dependence and psychological abnormalities

Causes and Symptoms

Pure ethyl alcohol is a colorless, mild-smelling liquid that boils at 79 degrees centigrade and evaporates quickly at room temperature. It is made either by fermentation of grain mashed and suspended in water or fruit juice, followed by the distillation (boiling) of the beer or wine that is produced, or by chemical synthesis from the petrochemical ethylene. Ethyl alcohol—usually simply called alcohol—has many uses, including the sterilization of surgical instruments and inclusion in the fuel gasohol; it is the liquid in which many medicines are dissolved, serves as the main component of perfumes and colognes, and is used in the manufacture of many useful chemicals. The best-known use of alcohol, however, is in alcoholic beverages, viewed by many as recreational beverages because of the mood-altering properties of the alcohol they contain.

It is believed that alcoholic beverages have been made since prehistoric times. The oldest records of widespread brewing of beer and production of wine have

been found in what were ancient Babylon and Egypt, respectively. According to historians, the main reasons for the preparation of alcoholic beverages by early civilizations were that their antimicrobial properties kept grape juice and other food sources from which they were prepared from spoiling, and the fact that drinking sparing amounts of fermented beverages was a preventive of many illnesses that people contracted from contaminated drinking water or from other unfermented beverages.

The abuse of alcoholic beverages has certainly occurred since their discovery; however, it became widespread during the Middle Ages, when the art of distillation became more universal, producing hard liquors (containing five to ten times the alcohol of beer and wine) that made it much easier to attain alcoholic euphoria and stupor. It has been estimated that nearly 70 percent of Americans use alcoholic beverages and that more than ten million of these people are involved in severe abuse of alcohol. These last people are called alcoholics; their compulsive alcohol abuse makes it difficult for them to retain a job, obtain an education, or perform responsible societal roles. Ultimately, alcoholics damage their brains and other body tissues irreversibly, often dying of the affliction or by suicide.

Unlike with nonalcoholics, once an alcoholic takes a drink, self-control is lost and a drinking spree begins that ends only in stupor, when intoxication is complete. Continued alcoholism over a long time period affects many body organs. Among them is the brain, where related mental disorders include delirium tremens (the DTs), acute alcoholic hallucinations, and Korsakoff syndrome. Both the DTs—

A drawing from 1885 illustrates the nineteenth century attitude toward alcoholism: "The sins of the drunken father are visited on the heads of the children—a thief and woman of shame visit their lunatic father in the criminal lunatic asylum." (Library of Congress)

characterized by hallucinations and other psychotic symptoms—and Korsakoff syndrome may be accompained by physical debility that can require hospitalization.

Alcoholic neuritis will develop when alcohol is the sole substance consumed. In addition, alcoholism damages the liver (causing cirrhosis that can be lethal), the kidneys, the heart, and the pancreas. In fact, a large percentage of diseases of these organs stems from alcohol abuse. Furthermore, evidence suggests that severe alcoholism, combined with excessive cigarette smoking, greatly enhances the incidence of cancer of the mouth and throat.

There is no clear physical explanation for the development of alcoholism. Rather, it is most often proposed that alcoholism develops as the result of social problems and psychological stress. Much support is given to the high likelihood of alcoholism arising in the socioeconomic groups where consumption of alcoholic beverages is equated with manliness or sophistication. Other major bases proposed for the development of alcoholism include domineering parents, adolescent peer pressure, personal feelings of inadequacy, loneliness, job pressures, and marital discord.

Treatment and Therapy

There is no known cure for alcoholism. A thorough review of the literature led Diane M. Riley and coworkers to the conclusion that "treatments for alcohol problems with demonstrated enduring effectiveness do not exist, regardless of treatment orientations or treatment goals." It is a disease that can be handled only by total abstinence from alcoholic beverages, medications that contain alcohol, and any other potential sources of alcohol in the diet. A single contact with alcohol from any source frequently leads to a relapse. Its recognition as a medical problem has led to many alcohol-rehabilitation treatment centers, where psychiatric treatment, medication, and physical therapy—in various combinations—provide valuable treatments. Furthermore, many experts believe that Alcoholics Anonymous (AA) programs are effective deterrents to a return to alcohol abuse.

As pointed out by Andrew M. Mecca, before 1935 the main opinion on alcoholism was that it was criminal behavior that merited punishment. Around 1935, the identification of the problem as a disease began. Crucial to the successful treatment of alcoholism was the advent of Alcoholics Anonymous, founded in that year. This organization operates on the premise that abstinence is the best course of treatment for alcoholism—an incurable disease that can be arrested by cessation of all alcohol intake. The goal of the organization is sobriety: the permanent stoppage of a person's drinking.

The methodology of Alcoholics Anonymous is psychosocial. It brings alcoholics to the realization that they cannot use alcoholic beverages without succumbing to alcoholism. It identifies the need for help from a higher power, and it develops a support group of people with the same condition. As stated by Mecca, "Alcoholics Anonymous never pronounces the disease cured. . . . [I]t is arrested." Estimates of the membership of the organization are between 1.5 and 3 million, meaning that up to a third of American alcoholics are affected by its tenets. These people achieve results ranging from periods of sobriety (usually lasting longer and longer as

membership in the organization continues) to lifelong sobriety. A deficit of sole utilization of Alcoholics Anonymous for treatment—according to many experts—is a lack of medical, psychiatric, and trained sociological counseling.

As to medical treatment aiming at abstinence via therapeutic drugs, two well-known drugs for enforcing sobriety are disulfiram (Antabuse) and citrated calcium carbonate (Abstem). These drugs may be given to alcoholics who wish to avoid using any alcoholic beverages and who require a deterrent to help them stop drinking. Neither drug should ever be given in secret by well-meaning family or friends because of the serious danger they cause in the presence of alcoholic beverages.

These dangers are attributable to the biochemistry of alcohol utilization via the enzymes (biological protein catalysts) alcohol dehydrogenase and aldehyde dehydrogenase. Normally, alcohol dehydrogenase converts alcohol to the toxic chemical acetaldehyde, then aldehyde dehydrogenase quickly converts acetaldehyde to acetic acid, the main biological fuel of the body. Abstem or Antabuse turns off aldehyde dehydrogenase. This causes acetaldehyde buildup in the body, when alcohol is consumed, and quickly leads to violent headache, flushing, nausea, dizziness, heart palpitation, and vertigo. Consumption of alcohol in several drinks (or even in cough medicines) in the presence of either drug can be fatal. An interesting sidelight is the view of some researchers, such as Cleamond D. Eskelson, that abstinence from alcohol may be genetically related to the presence of too much alcohol dehydrogenase and/or too little aldehyde dehydrogenase in the body, producing enough acetaldehyde to cause aversion to alcohol consumption.

Other therapeutic drugs that have been utilized to treat alcoholics include lithium (more often given to manic-depressive psychiatric patients), and tranquilizers. Their usual function is to soften the severe discomfort of alcohol withdrawal on the alcoholic patient. Lithium treatment, which must be done with great care because lithium can become toxic, appears to be effective only in a subset of alcoholics who drink because of depression or manic-depressive psychosis.

The use of tranquilizers (and related sedative hypnotics) must also be done with great care, under the close supervision of a physician. There are two main reasons for this: many of these drugs can be addicting, and their abuse can simply substitute another drug dependence for alcoholism; and alcohol and some of these drugs have additive effects that can be fatal if an alcoholic backslides during therapy.

The great value of the psychiatrist in alcoholism therapy has been identified by various sources. David H. Knott, in his book *Alcohol Problems: Diagnosis and Treatment* (1986), points out that while a psychotherapist cannot perform miracles, psychotherapy can be very valuable in helping the alcoholic patient by identifying factors leading to “destructive use of alcohol”; exploring and helping to rectify problems associated with alcohol abstinence; providing emotional support that helps many patients to rebuild their lives; and interfacing in referring patients to Alcoholics Anonymous and other long-term support efforts. The psychotherapist also has irreplaceable experience with psychoactive therapeutic drugs, behavioral modification techniques, and identifying whether a given individual requires institutionalization.

Knott also points out the importance of behavioral modification as a cornerstone of alcohol psychotherapy and makes it clear that a wide variety of choices is available to alcoholics desiring psychosocial help. An interesting point made by A. E. Bennet, in *Alcoholism and the Brain* (1977), is that autopsy and a variety of sophisticated medical techniques, including computed tomography (CT) scans, identify atrophy of the cerebral cortex of the brain in many alcoholics. This damage is viewed as a factor in the inability of alcoholics to stop drinking, as well as in loss of motor skills and eventual development of serious conditions such as Korsakoff syndrome.

Perspective and Prospects

The excessive use of alcoholic beverages, with resultant alcoholism, has occurred for many centuries. In recent years, however, the problem of alcoholism has assumed epidemic proportions; it affects more than ten million Americans. Two societal observations that are particularly disturbing are the estimates that 10 to 25 percent of American high school students get drunk once a week and the observation that alcoholism appears to be self-perpetuating: More than 50 percent of alcoholics are the offspring of alcoholic parents.

Modern efforts to deal with alcoholism are often considered to have begun in the early twentieth century, with the activities of the American temperance movement that culminated with Prohibition upon the passage of the 1919 Volstead Act by the U.S. Congress. The idea behind the Volstead Act was that making liquor impossible to obtain would force sobriety on the nation. Prohibition turned out to be self-defeating, however, and several sources point out that it actually increased the incidence of alcoholism in the potential problem drinker. It was repealed in 1933.

The next, and much more useful, effort to combat alcoholism was the psychosocial approach of Alcoholics Anonymous, started in 1935 and still operating well. Yet that organization does not reach the majority of alcoholics, so other efforts needed to evolve as treatment methodologies. Among these have been the wide use of psychiatric counseling, alcohol rehabilitation centers, family counseling, and alcohol management programs in the workplace.

These options—alone or in various combinations—have had considerable success in reaching alcoholics, and combined alcoholism therapy seems to work best; however, it has not yet been possible to stem the tide of increasing alcoholism or to cure the disease. Instead, these techniques—like those of Alcoholics Anonymous—can only arrest it. Part of the reason for this is the fact that the basis for alcoholism is not clearly understood by those attempting to eradicate it.

One hope for curing alcoholism is ongoing basic research into the biochemistry, pharmacology, and physiology of alcoholism. A number of aspects of such efforts are discussed in Ronald Ross Watson's *Diagnosis of Alcohol Abuse* (1989). While the information and answers so far obtained are not yet clear-cut or applicable, it is hoped that the continuation of such efforts will help to provide better insight and solutions to the problem.

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See also:

Addictive Personality and Behaviors; Codependent Personality; Substance Abuse.

Alzheimer's Disease

Type of psychology: Memory; psychopathology
Fields of study: Cognitive processes; organic disorders

Alzheimer's disease is the most common cause of dementia in old age, affecting between 3 and 11 percent of those over sixty-five.

Principal terms

AGNOSIA: an inability to recognize persons or various objects even though the patient sees them clearly

ANOMIA: an inability to remember the names of persons or objects even though the patient sees and recognizes the persons or objects

APHASIA: difficulty in understanding and talking to other people in the absence of hearing impairment

APRAXIA: difficulty in carrying out coordinated voluntary activities (such as dressing, undressing, or brushing one's teeth) in the absence of any muscular weakness

BENIGN SENESCENT FORGETFULNESS: a common source of frustration in old age, associated with memory impairment; unlike dementia, it does not interfere with the individual's social and professional activities

COGNITIVE DEFICIT: an impairment in mental functions, including anomia, agnosia, aphasia, and apraxia; it is usually associated with an impairment in the ability to make rational decisions

DEMENTIA: also called dementing illness; a disease characterized by memory impairment of sufficient severity to interfere with the individual's daily social and professional activities

Causes and Symptoms

Alzheimer's disease is the most common dementing illness in old age. In the United States, it is estimated that its prevalence increases from 3 percent in those aged sixty-five to seventy-four years, to 18.7 percent in those seventy-five to eighty-four years of age, to as much as 47.2 percent of those over the age of eighty-five. While both sexes are about equally affected, there are more women than men with Alzheimer's disease because women tend to live longer. As with other dementing illnesses, the characteristic memory impairment initially affects the recent, rather than the remote, memory and interferes with the patient's daily social and professional activities; the patient's attention span is also significantly reduced.

The disease typically has a slow, insidious onset, and a very slow, gradual progress. Caregivers observing this decline are often unable to agree about when the symptoms began to manifest themselves. The memory deficit is usually accompanied by an impaired ability to make good, rational decisions. One of the most common and earliest problems is an inability to take care of one's financial

affairs. In addition to being unable to balance a checkbook, the patient may attempt to pay the same bill several times, while disregarding other financial obligations. Similarly, the patient may be overly generous at times and extremely mean on other occasions.

In Alzheimer's disease, the dementing process is also associated with other evidence of cognitive deficit. When anomia is present, patients often use paraphrases to describe various objects because they have difficulty finding the correct words. For example, they may say "milk pourer" instead of "milk jug." This condition is usually present very early in the disease process, but it is often so slight that it may only be detected by neuropsychological testing. Agnosia develops later and can be quite hazardous. For example, a patient may confuse a knife with a comb. As the disease progresses, a patient may develop aphasia and find it difficult to communicate with other people. Finally, the patient develops apraxia, experiencing difficulty carrying out coordinated activities such as dressing or undressing, even though there is no loss of muscular power. The apraxia may also be responsible for unsteadiness, and the patient may fall repeatedly and may become chairbound or bedfast. Anomia, agnosia, aphasia, and apraxia are sometimes referred to as the "four A's" that accompany the memory deficit seen in Alzheimer's disease.

Alzheimer's disease is progressive, and there is much individual variability in the rate of progress. A number of staging classifications, most of them arbitrary, are available. One of the most practical is the three-stage classification. In stage 1, the memory impairment and degree of cognitive deficit are so slight that patients may still be able to function socially and even professionally, although family members and close associates may have observed strange behavioral patterns. Superficially, the patients may appear "normal," although somewhat eccentric. Although the memory deficit and impaired mental functions are present, patients may use various tricks to mask this deficit. They may ask a partner to keep score of a game they are playing because they have "left their reading glasses at home" or may decline invitations to play card games or socialize altogether. Patients with this disease may also stop engaging in their favorite hobbies and activities. Patients at this stage usually have difficulties balancing their checkbooks. Errors of judgment are not infrequent, although they are initially often attributed by family and friends to age, to eccentricity, or to the patient's having too many things on his or her mind. Patients may buy large quantities of the same item and start hoarding various articles. As time progresses, they may lose their way, and their errors in judgment while driving may result in traffic accidents. One of the main problems in this stage is the inability to learn and retain new information. This mental deficit becomes particularly problematic if the patient's work is being reorganized or if the patient relocates. Agitation, irritability, and anxiety are not uncommon in this stage and probably represent the patient's inability to cope with a loss of control over the environment and a declining mental ability.

In stage 2, the memory impairment, cognitive deficit, and degree of impaired judgment are so great that even a stranger who has never met the patient cannot help but conclude that there is something wrong with the patient's mental func-

Alzheimer's disease causes the volume of the brain to shrink substantially. (Hans & Cassidy, Inc.)

tions. In this stage, patients frequently become lost, even in very familiar surroundings, such as in their own houses. They may no longer be able to find their way to the toilet, they may no longer recognize people they know well, and they are unable to take care of their own hygienic needs. They tend to walk aimlessly and wander constantly and are likely to become agitated, irritable, and even aggressive. These symptoms are often pronounced late in the afternoon or early evening and are often referred to as "sundowning syndrome."

In stage 3, in addition to their mental impairment, patients become unsteady on their feet and may sustain repeated falls. Because they have become physically frail, they tend to wander much less and to spend most of their time confined to a chair or bed. They are completely dependent on their caregivers for most activities. Swallowing is often difficult, and feeding through a small tube inserted in the nose (a nasogastric tube) may be required. Patients are at risk of becoming dehydrated and malnourished, and urinary and even fecal incontinence is not uncommon. Mutism gradually sets in, and communication with the patient becomes difficult. Flexion (bending) contractures gradually develop, and the patient slowly adopts the fetal position, with the arms and knees bent. The development of pressure ulcers, or bedsores, is likely. The common cause of death is septicemia (blood poisoning) resulting from a respiratory tract infection, a urinary tract infection, or an infected pressure ulcer.

Alzheimer's disease is characterized by a loss of brain cells, affecting in particular the cerebral cortex. The brain appears smaller in size and atrophic, with the gyri (grooves) much less prominent and the ventricles (cavities inside the brain) enlarged. Multiple deficiencies in the neurotransmitters, chemical substances inside the brain that carry impulses from one cell to another, have been identified with this disease.

At present, there are no positive tests available to make a definitive diagnosis of Alzheimer's disease without examining brain tissue under the microscope. Before such a diagnosis can be considered, several factors should be present. First, the memory impairment should be of sufficient magnitude and consistency to interfere with one's social and professional activities, and it should be accompanied by

evidence of cognitive deficit and impaired judgment. These are the main differentiating features between Alzheimer's disease and benign senescent forgetfulness, which is also very common in old age. Although the latter can be quite irritating, it does not significantly interfere with the person's professional and social activities and tends to be selective, with one's forgetting only unimportant and relatively trivial matters. The forgetfulness seen in Alzheimer's disease, on the other hand, is global and does not distinguish between trivial and important matters.

Second, in Alzheimer's disease, the onset of memory impairment is insidious, and the progress is slow. This differentiates it from multiple infarct dementia, which is caused by multiple strokes and which has an abrupt onset and progress marked by bouts of deterioration. Whenever a stroke develops, the patient's condition deteriorates and then stabilizes until the next stroke occurs.

Third, the patient must be alert, not drowsy—one of the main distinctions between Alzheimer's disease and delirium. The latter, in addition to having a sudden onset, is associated with clouding of consciousness, a rambling and incoherent speech, disorganized thinking, hallucinations, and sensory misperceptions.

Finally, as the diagnosis of Alzheimer's disease is still based on a process of exclusion, all other possible causes of impaired mental functions must be ruled out. These causes are numerous and can be conveniently remembered by the mnemonic device DEMENTIA.

The *D* stands for drugs. Older patients are particularly susceptible to the effects of many medications that may impair mental functions. These indications include not only those acting specifically on the brain, such as the sedatives and hypnotics, but also other medications such as those that lower blood pressure. Finally, alcohol is often abused by older people and may significantly interfere with the older person's mental abilities.

The *E* stands for emotional disorders. Depression is very common in old age and may manifest itself with cognitive impairment. Unlike patients with Alzheimer's disease, who except in the very early stages of the disease are not aware of their deficit, those with depression are acutely aware of their problem and often exaggerate it. Often, patients with depression also have a long list of complaints. They lack animation, their appetite is reduced, and they take a diminished interest in their environment and pleasure in their daily activities. Sleep disturbances, in the form of insomnia or increased sleepiness, are common. Although most cases of depression are easily recognized, some may be difficult to diagnose and therefore may require neuropsychological testing to differentiate them from Alzheimer's disease. This differentiation is important, because unlike Alzheimer's disease, depression can be treated, and the outlook is good. Additionally, it is important to emphasize that about 20 percent of patients with Alzheimer's disease have a coexistent depression that often responds to appropriate therapy.

The *M* stands for metabolic disorders. In old age, both overactivity and underactivity of the thyroid gland may be responsible for mental impairment without a patient's exhibiting any of the characteristic clinical features. Dehydration is a common cause of confusion in older patients because their sense of thirst is often reduced. Liver and kidney diseases also may be responsible for impaired mental

functions. Similarly, patients with diabetes mellitus are susceptible to a number of metabolic disorders, including an increased or decreased blood sugar level, both of which may cause cognitive impairment. Serum electrolyte disorders also may result in confusional states and can be precipitated by severe vomiting, diarrhea, or the intake of medication. Finally, vitamin B_{12} deficiency may be responsible for impaired mental functions, occasionally without there being any other clinical evidence of this deficiency. Patients who have had a gastrectomy (surgical removal of their stomach) and no vitamin B_{12} replacement are likely to develop B_{12} deficiency a few years after surgery. By this time, however, the patient may have relocated, changed physicians, and probably "forgotten" about the surgery.

The *E* stands for both eyes and ears. For individuals to interact appropriately with others and the environment, they must be aware of the various circumstances surrounding them. If an individual cannot hear properly and guesses at the questions asked, he or she often will not give an appropriate answer and may give the impression of being confused. Hearing impairment is very common among the older population, and often older people choose not to wear a hearing aid because of difficulties manipulating the controls or because of embarrassment. Visual impairment may also interfere with an individual's appropriate interaction with the environment and give the impression of dementia. There are many causes of visual impairment in old age, including glaucoma, cataracts, and macular degeneration (a progressive disorder of the retina).

The *N* stands for neurological disorders; these include other dementias such as multiple infarct dementia and hydrocephalus (increased fluid in the brain).

The *T* stands for both tumors and trauma. A subdural hematoma (a collection of blood inside the skull) may be precipitated by trauma that is usually trivial. The symptoms do not become apparent until a few days or even weeks after the trauma, by which time the patient and caregivers may have forgotten about the physical trauma. Brain tumors may also manifest themselves with impaired mental functions. The computed tomography (CT) scan and magnetic resonance imaging (MRI) are useful tools in diagnosing these conditions.

The *I* stands for infections. Infections, regardless of their location but especially those of the respiratory and urinary tracts, may be associated with confusional states in older people. Unlike younger people, they often do not exhibit a rise in body temperature, thus making the diagnosis of infection difficult. Acquired immunodeficiency syndrome (AIDS) is another cause of dementia that is related to infection; this condition must be suspected when mental functions deteriorate rapidly, especially if the patient has risk factors for AIDS.

The *A* stands for atherosclerosis and includes arteriosclerotic cardiovascular diseases. Older patients who experience myocardial infarction (a "heart attack" caused by a sudden reduction of blood flow to the heart muscle) may not experience any chest pain but may nevertheless develop an acute confusional state. Generalized arteriosclerosis also might be responsible for multiple, small, repeated strokes that can eventually interfere with the patient's cognitive functions.

The accuracy of the clinical diagnosis of Alzheimer's disease can be increased to about 90 percent if a few investigations are conducted. These include a complete

blood count, Chem-18 (a series of blood tests to check on the blood levels of many substances and the functioning of the kidneys and liver), thyroid function tests, serum B_{12} measurement, electrocardiogram, and brain imaging tests. Single photon emission computed tomography (SPECT) seems to be a promising test in the diagnosis of Alzheimer's disease and may represent the first step toward being able to make a diagnosis without examining brain tissue microscopically.

Treatment and Therapy

Although the understanding of the pathophysiology of Alzheimer's disease has increased tremendously since it was first described by Alois Alzheimer in the early years of the twentieth century, this understanding has not been translated into effective therapeutic opportunities. A large number of compounds have been and are being tried for the treatment of Alzheimer's disease but, unfortunately, without any significant degree of success. At present, therefore, it is essentially a disease without a cure.

Nevertheless, many things can be done to aid a patient with Alzheimer's disease. It is important to detect the presence of any other disease that may worsen the patient's condition, and unnecessary medications must be avoided for the same reason. Medication may nevertheless be required to control agitation and the sundowning syndrome. Physicians will generally start with the smallest possible dose of medication and then gradually increase it according to the patient's symptoms.

The patient's environment and daily routine should be left as constant as possible, as any change may precipitate or worsen the symptoms and degree of confusion. The patient should be spared the task of having to choose an option among several ones (such as which dress to wear) and to make decisions (such as which activity in which to become involved). Instead, the daily routine should be as structured as possible and yet retain enough flexibility for the patient to withdraw from any activity that is disliked and to join any that is enjoyed.

The patient with Alzheimer's disease should be treated not in isolation but by caregivers and family members, who will also need support and help if they are to cope effectively with their loved one's illness. Social workers and various community agencies can help develop a management program tailored to the individual patient's needs and those of his or her caregivers. A number of community programs are available, and the Alzheimer's Association and support groups are very useful resources. Caregivers and family members should also be given advice concerning financial, legal, and ethical issues, such as obtaining a durable power of attorney and finding out the patient's wishes concerning advance directives prior to incapacitation.

Perspective and Prospects

Alzheimer's disease has been compared to other brain diseases that reduce neurotransmission, how the brain communicates with itself, and the actual number of brain cells. Clinical and experimental drugs have become available that attempt to treat age-related cognitive decline, Alzheimer's disease, and other dementias. By

the beginning of the twenty-first century, no panacea had been developed, but research in this area continued to be vigorous and well funded.

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See also:

Brain Disorders; Dementia; Depression; Geriatric Psychiatry; Memory Loss.

Amnesia, Fugue, and Multiple Personality

Type of psychology: Psychopathology
Fields of study: Anxiety disorders; models of abnormality; organic disorders

Amnesia, fugue, and multiple personality form a group of mental disorders that are typically referred to as the dissociative disorders; they are called dissociative because some area of memory is split off, or dissociated, from conscious awareness.

Principal terms

AMNESIA: total or partial memory loss, which is often acute and follows an emotional or physical trauma

BIOGENIC DISORDER: an illness that is attributable primarily to some type of physiological trauma or sickness

DIAGNOSIS: the classification or labeling of a patient's problem within one of a set of recognized categories of abnormal behavior

DISSOCIATIVE DISORDERS: disorders that occur when some psychological function, such as memory, is split off from the rest of the conscious mind

FUGUE STATE: a flight from reality in which the individual leaves his or her present situation, travels to a new location, and establishes a new identity

MULTIPLE PERSONALITY: a rare mental disorder characterized by the development and existence of two or more relatively unique and independent personalities in the same individual

PSYCHOGENIC DISORDER: an illness that is attributable primarily to some psychological conflict or to emotional stress

Causes and Symptoms

Amnesia, fugue, and multiple personality are considered by most mental health professionals to be the three major types of dissociative disorders—disorders in which some important area of memory is split off (dissociated) from the individual's conscious awareness.

Like all the dissociative disorders, amnesia has long fascinated both mental health professionals and the general public. Most professionals define amnesia as the sudden inability to recall important personal information, such as one's name, occupation, or family. Amnesia victims, or amnesiacs, suddenly wonder who they are and why they are in their present circumstances.

In some cases, amnesia is caused by biological factors. A variety of physical traumas, such as a blow to the head, gunshot wound to the brain, stroke, or history of chronic alcoholism, can cause an individual to suffer from impaired memory. When amnesia is caused by such physical problems, the amnesia is said to be biogenic. A person who suffers from biogenic amnesia will typically experience

the loss of both personal and general knowledge. For example, a concert pianist with biogenic amnesia not only will lose personal information such as name and family history but also will lose such general information as knowledge of music and the ability to play the piano. If physicians are able to treat the physical causes of biologically based amnesia in a successful manner, the afflicted individual's memory often tends to return slowly—over a period of weeks, months, or even years.

When amnesia is caused by emotional factors, the individual's situation is somewhat different. In these cases, the person is said to have psychogenic amnesia. This person will typically suffer the loss of personal, but not general, information. For example, the concert pianist with psychogenic amnesia may forget such personal information as his or her name and address but will still be able to play difficult pieces of music and recall the complexities of music theory. Such a case of psychogenic amnesia will typically occur when a person is suffering from numerous emotional stressors, such as marital, financial, or career problems, or when the person receives a severe emotional shock, such as the unexpected death of a loved one. The amnesia may thus help the person escape such unpleasant circumstances. Many theorists believe that psychogenic amnesia victims forget in order to avoid the unbearable anxiety that is associated with their problems or traumatic experiences.

A few cases of psychogenic amnesia have continued for the rest of the victim's life. In most cases, however, the afflicted individual will regain his or her memory anywhere from a day to several years after the syndrome's onset; no one knows why many amnesiacs are suddenly able to regain their memory. Psychogenic amnesia will often come and go in a rapid manner.

Like amnesia, a fugue syndrome tends to begin and end abruptly. Fugue (also known as psychogenic fugue) occurs when the afflicted individual takes an unexpected trip or excursion, forgets his or her identity, and assumes a new identity. The term "fugue" is derived from the Latin word *fuga*, meaning flight. This is an appropriate name, since the fugue victim is usually in a state of flight, fleeing some intolerable situation. While amnesiacs may wander about in a confused manner, fugue patients tend to travel in a way that appears both purposeful and deliberate. Fugue patients also tend, unlike amnesiacs, to manufacture a new identity. This new identity allows these individuals greater freedom and an escape from their troubles.

The length of fugue states varies considerably. In most cases, the person travels for little more than a day or two and goes no farther than the next town. A small group of fugue patients, however, will travel hundreds of miles, create new identities, and pursue their new lives for months or even years. During the fugue state, the patient will appear normal to other people. When the person finally "wakes up," he or she will have no memory of what took place during the fugue state. Like amnesia, fugue states seem to occur when a person has numerous troubles or has experienced an unbearable psychological trauma. For this reason fugue states, which are normally quite rare, are more common in wartime or after natural disasters.

While fugue patients travel to a new place to be someone else, individuals with multiple personality disorder stay in one place as they experience the existence of two or more separate personalities. Each personality will have a unique set of habits, tastes, and learned behaviors. Only one personality will dominate the person's thoughts and consciousness at a given time, and the shifts from one personality to the next will be quite abrupt and dramatic. While cases of multiple personality are very rare, this disorder has received considerable attention from the popular media because of its bizarre and fascinating nature.

Most individuals with multiple personality disorder have one primary personality, as well as one or more secondary personalities. The primary personality is the individual who is known to most people. This personality is often quiet, meek, and obedient, while the secondary personalities tend to be more aggressive, irresponsible, and pleasure seeking.

Though it is not entirely clear how an individual comes to have more than one personality, many professionals now believe that this disorder stems from a history of extreme emotional, physical, or sexual abuse during one's childhood. If a small child is severely beaten or molested, he or she may attempt to cope by pretending that the abuse is happening to someone else. The child may even give a name to this "other" person. As the child comes to rely repeatedly on this other person to cope with the abuse, the secondary personality eventually takes on a life of its own.

Treatment and Therapy

Like all psychiatric diagnoses, the dissociative disorders are useful when they help mental health professionals understand the experience of a disturbed individual. If it is known that someone suffers from a particular syndrome, such as amnesia, the knowledge may facilitate the individual's treatment. Diagnostic categories also enable psychologists to place individuals in groups, so that their problems and potential treatment can be studied by research scientists. One way to understand how knowledge of dissociative disorders can help professionals make sense of an individual's problems is to review some of the well-known case studies in this field.

In 1967, Henry Laughlin published the story of a patient named Robert who joined the Army and served for a year during a fugue state. Laughlin reports that Robert was a fifteen-year-old boy who was attending high school in a small New Jersey town. At the onset of his fugue state, Robert was beset by numerous problems. He was unusually large for his age and was frequently teased by peers. He was also engaging in a number of quarrels with his parents and was making poor grades at school. Robert was apparently quite upset by these problems, and he had begun to believe that his current situation was hopeless. One afternoon Robert came home and, with a sense of utter despair, threw his schoolbooks on the front porch.

Robert then remembered nothing more until approximately one year later. At that time, Robert, who was successfully serving under another name in the Army, suddenly recalled his life as a high school student. The last thing he remembered was throwing his books on the front porch. Robert had no idea why he was on an Army base, and he could remember nothing of his military career. His family was

eventually contacted, and he was discharged for being underage.

Robert's fugue state was typical in that he had been experiencing considerable stress before the onset of his illness. Like most fugue patients, he temporarily escaped his troubles by creating a new identity in a new locale. Robert was also like most fugue patients in that he regained his memory rapidly and was then unable to recall what had transpired during his travels and military career. Although Robert's fugue state did last for an unusually long time, his case is in many ways a classic example of psychogenic fugue.

A case that is perhaps even more sensational than Robert's is the story of Eve White, a multiple personality patient described by Corbett Thigpen and Hervey Cleckley. Thigpen and Cleckley indicate that Eve White was a young woman who sought medical assistance because of severe headaches and occasional blackouts. This woman was described as "demure, retiring, in some respects almost saintly." Eve White was a devoted mother who worked extremely hard to support and rear a young daughter. Friends and coworkers found Eve White to be quiet, sensitive, and at times a little too serious.

One day as Eve White was describing her problems to her therapist, she was seized by a sudden headache and put both hands to her head. Thigpen and Cleckley report that "after a tense moment of silence, her hands dropped. There was a quick, reckless smile and, in a bright voice that sparkled, she said, 'Hi there, Doc!' " The patient began to talk about Eve White in a casual and carefree manner; she referred to Eve White as "her" and "she." When asked her name, the patient stated, "Oh, I'm Eve Black." As time went on, the therapist began to discover that Eve Black was "a party girl, shrewd, childishly vain, and egocentric." While Eve White was suffering from blackouts, Eve Black would attend parties, flirt with men in bars, and engage in wild spending sprees. Eve Black would then retreat and force Eve White to deal with the consequences of her reckless behavior. Eve White had no awareness of Eve Black. Eve Black was, however, typically conscious of Eve White and her troubles. Eve Black was also able to remember a number of painful childhood memories that Eve White was completely unable to recall. For example, as treatment progressed, it was Eve Black who was able to tell the therapist how Eve White was severely beaten by her parents as a child.

Eventually a third personality emerged from this young woman. This personality, named Jane, was aware of both Eve White and Eve Black. Jane was described as more mature, thoughtful, and balanced than either Eve White or Eve Black. The emergence of Jane may thus have represented an attempt on the part of this patient to integrate aspects of Eve White and Eve Black into one cohesive personality.

As the three personalities became better known, Thigpen and Cleckley eventually published a popular account of them in a book entitled *The Three Faces of Eve* (1957). Eve's case history serves as a clear example of how an individual can develop multiple personalities, each of which can take on a life of his or her own.

Perspective and Prospects

Mental health professionals have known about the existence of dissociative disorders for many years. Sigmund Freud and his followers began to study psychogenic

amnesia around the beginning of the twentieth century, and the first widely publicized case of multiple personality was reported by Morton Prince in 1905. Since the time of this early work, both professionals and the general public have been fascinated with the dissociative disorders.

Despite the widespread interest in psychogenic amnesia, psychogenic fugue, and multiple personality, these disorders are actually quite rare. Many experienced psychiatrists and clinical psychologists have never encountered a patient with one of these dissociative disorders in their practice. Because of the extreme rarity of these conditions, the dissociative disorders are not a major mental health problem in the United States.

Many social scientists, however, continue to believe that these disorders merit further study. It is difficult to conduct large-scale research projects on the dissociative disorders, simply because it is so hard to obtain an adequate number of subjects. Carefully conducted case studies, however, will continue to further understanding of the disorders. These case histories may be able to teach some important lessons about human nature. Although most individuals do not experience the dramatic memory problems of amnesia or multiple personality patients, the dissociative experience should not be seen as completely foreign to the ordinary person. Expressions that suggest dissociative reactions are commonly used to describe ordinary individuals. One might say that someone is "running away from his problems," is "not quite herself today," or "has become a different person." All these expressions suggest that the person has somehow disavowed a part of his or her conscious experience or personality style. It is possible that the dissociative disorders of psychogenic amnesia. psychogenic fugue, and multiple personality may thus be nothing more than a very extreme and dramatic exaggeration of a common human experience.

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See also:

Abnormality; Anxiety Disorders; Forgetting and Forgetfulness; Identity Crises; Memory Loss; Phobias.

Analytical Psychotherapy

Type of psychology: Psychotherapy
Fields of study: Psychodynamic therapies

Analytical psychotherapy is associated with the theory and techniques of Carl Gustav Jung. Similar to other psychodynamic therapies, it stresses the importance of discovering unconscious material. Unique to this approach is the emphasis on reconciling opposite personality traits that are hidden in the personal and collective unconsciouses.

Principal terms

COLLECTIVE UNCONSCIOUS: memories and emotions of which people are usually unaware but which are shared by all humanity

COMPENSATORY FUNCTION: displaying denied aspects of one's personality; a characteristic of dreams

CONFESSION: the first stage of Jungian psychotherapy, in which the patient relates conflicts in an emotional fashion

EDUCATION: the third stage of Jungian psychotherapy, in which the therapist communicates the danger of one-sided personality development

ELUCIDATION: the second stage of Jungian psychotherapy, in which the patient acts toward the therapist as toward some significant person from the patient's past

METHOD OF ACTIVE IMAGINATION: the process of discovering unconscious material from the patient's artistic productions

METHOD OF AMPLIFICATION: a Jungian technique for dream analysis in which the patient makes multiple associations to the contents of the dream

PERSONAL UNCONSCIOUS: a structure of personality that contains thoughts and emotions that are too anxiety-provoking for conscious awareness

TRANSFERENCE: acting toward the therapist in a similar way as to some significant person from the patient's past

TRANSFORMATION: the fourth stage of Jungian psychotherapy, in which the patient seeks self-discovery through reconciling opposite personality traits

Overview

Analytical psychotherapy is an approach to psychological treatment pioneered by Carl Gustav Jung (1875-1961), a Swiss psychoanalyst. A follower of Sigmund Freud, Jung was trained in the psychoanalytic approach, with its emphasis on the dark, inaccessible material contained in the unconscious mind. Freud was fond of Jung and believed that he was to be the heir to the legacy he had begun. Jung began to disagree with certain aspects of Freud's theory, however, and he and Freud parted ways bitterly in 1914.

Jung's concept of the structure of personality, on which he based his ideas of

psychotherapy, was obviously influenced by Freud and the psychoanalytic tradition, but he added his own personal and mystical touches to its concepts. Jung believed that the personality consists of the ego, which is one's conscious mind. It contains the thoughts, feelings, and perceptions of which one is normally aware. Jung also proposed a personal unconscious that contains events and emotions of which people remain unaware because of their anxiety-provoking nature. Memories of traumatic childhood events and conflicts may reside in the personal unconscious. Jung's unique contribution to personality theory is the idea of a collective unconscious. This consists of memories and emotions that are shared by all humanity. Jung believed that certain events and feelings are universal and exert a similar effect on all individuals. An example would be his universal symbol of a shadow, or the evil, primitive nature that resides within everyone. Jung believed that although people are aware of the workings of the conscious ego, it is the unavailable material contained in the personal unconscious and collective unconscious that has the greatest influence on one's behavior.

Jung believed that emotional problems originate from a one-sided development of personality. He believed that this is a natural process and that people must constantly seek a balance of their traits. An example might be a person who becomes overly logical and rational in her behavior and decision making while ignoring her emotional and spontaneous side. Jung believed this one-sided development eventually would lead to emotional difficulty and that one must access the complementary personality forces that reside in the unconscious. Even psychotherapists must be aware that along with their desire to help others, they have complementary darker desires that are destructive to others. Jung believed that emotional problems are a signal that one is becoming unbalanced in one's personality and that this should motivate one to develop more neutral traits.

The process of analytical psychotherapy, as in most psychodynamic approaches, is to make the patient conscious or aware of the material in his or her unconscious mind. Jung believed that if the conscious mind were overly logical and rational, the unconscious mind, to balance it, would be filled with equally illogical and emotional material. To access this material, Jung advocated a free and equal exchange of ideas and information between the analyst and the patient. Jung did not focus on specific techniques as did Freud, but he did believe that the unconscious material would become evident in the context of a strong, trusting therapeutic relationship. Although the patient and analyst have equal status, the analyst serves as a model of an individual who has faced her or his unconscious demons.

Analytic psychotherapy proceeds in four stages. The first stage is that of confession. Jung believed that it is necessary for the patient to tell of his or her conflicts and that this is usually accompanied by an emotional release. Jung did not believe that confession is sufficient to provide a cure for one's ills, however, nor did he believe (unlike Freud) that an intellectual understanding of one's difficulties is adequate. The patient must find a more neutral ground in terms of personality functioning, and this can only be accomplished by facing one's unconscious material.

The second stage of psychotherapy is called elucidation, and it involves becom-

ing aware of one's unconscious transferences. Transference is a process in which a patient transfers emotions about someone else in his or her life onto the therapist; the patient will behave toward the therapist as he or she would toward that other person. It is similar to meeting someone who reminds one of a past relationship; for no apparent reason, one might begin to act toward the new person the same way one did to the previous person. Jung believed that these transferences to the analyst give a clue about unconscious material. A gentle, passive patient might evidence hostile transferences to the therapist, thus giving evidence of considerable rage that is being contained in the unconscious.

The third stage of analytic psychotherapy consists of education. The patient is instructed about the dangers of unequal personality development and is supported in his or her attempts to change. The overly logical business executive may be encouraged to go on a spontaneous vacation with his family with few plans and no fixed destinations. The shy student may be cajoled into joining a debate on emotional campus issues. Jung believed in the value of experiencing the messages of one's unconscious.

The final stage of psychotherapy, and one that is not always necessary, is that of transformation. This goes beyond the superficial encouragements of the previous stages and attempts to get the patient to delve deeply into the unconscious and thereby understand who he or she is. This process of understanding and reconciling one's opposites takes considerable courage and exploration into one's personal and cultural past. It is a quest for one's identity and purpose in life that requires diligent work between the analyst and patient; the result is superior wisdom and a transcendent calm when coping with life's struggles.

Applications

Jung developed several techniques aimed at uncovering material hidden in the unconscious. Like Freud, Jung believed that the content of dreams is indicative of unconscious attitudes. He believed that dreams have a compensatory function; that is, they are reflections of the side of personality that is not displayed during one's conscious, everyday state. The sophisticated librarian may have dreams of being an exotic dancer, according to Jung, as a way of expressing the ignored aspects of personality.

Jung gives an example of the compensatory aspects of dreams when describing the recollections of a dutiful son. The son dreamed that he and his father were leaving home and his father was driving a new automobile. The father began to drive in an erratic fashion. He swerved the car all over the road until he finally succeeded in crashing the car and damaging it very badly. The son was frightened, then became angry and chastised his father for his behavior. Rather than respond, however, his father began to laugh until it became apparent that he was very intoxicated, a condition the son had not previously noticed. Jung interpreted the dream in the context of the son's relationship with his father. The son overly idealized the father while refusing to recognize apparent faults. The dream represented the son's latent anger at his father and his attempt to reduce him in status. Jung indicated to the young man that the dream was a cue from his unconscious that he should evaluate

his relationship with his father with a more balanced outlook.

Jung employed the method of amplification for interpreting dreams. This technique involved focusing repeatedly on the contents of the dream and giving multiple associations to them. Jung believed that the dream often is basically what it appears to be. This differs dramatically from Freudian interpretation, which requires the patient to associate dream elements with childhood conflicts.

The amplification method can be applied to a dream reported by a graduate student in clinical psychology. While preparing to defend his dissertation, the final and most anxiety-provoking aspect of receiving the doctorate, the student had a dream about his oral defense. Before presenting the project to his dissertation committee that was to evaluate its worth (and seemingly his own), the student dreamed that he was in the bathroom gathering his resources. He noticed he was wearing a three-piece brown suit; however, none of the pieces matched. They were different shades of brown. Fortunately, the pieces were reversible, so the student attempted to change them so they would all be the same shade. After repeated attempts he was unable to get all three pieces of the suit to be the same shade of brown. He finally gave up in despair and did not appear for his defense. With a little knowledge about the student, an analytical therapist would have an easy time with the meaning of this dream. This was obviously a stressful time in the young man's life, and the dream reflected his denied anxiety. In addition, the student did not like brown suits; one that does not match is even more hideous. It is apparent that he was unhappy and, despite his best attempts to portray confidence, the budding clinician was afraid that he was going to "look stupid." Jung would have encouraged him to face these fears of failure that were hidden in his unconscious.

A final application of analytical psychotherapy stems from Jung's method of active imagination. Jung believed that unconscious messages could come not only from dreams but also from one's artistic productions. He encouraged his patients to produce spontaneous, artistic material. Some patients sketched, while others painted, wrote poetry, or sang songs. He was interested in the symbols that were given during these periods, and he asked his clients to comment on them. Jung believed that considerable material in the unconscious could be discovered during these encounters. He also talked with his patients about the universal meanings of these symbols (as in his idea of the collective unconscious), and they would attempt to relate this material to the patients' cultural pasts.

Many modern therapies, such as art, music, and dance therapy, draw heavily from this idea that one can become aware of unconscious and emotional material through association involving one's artistic productions. These therapists believe, as did Jung, that patients are less defensive during these times of spontaneous work and, therefore, are more likely to discover unconscious material.

Perspective and Prospects

Jung's analytical psychotherapy was a pioneering approach during the very early era of psychological treatment. He conformed to the beliefs of other psychodynamic therapists, such as Sigmund Freud and Alfred Adler, in the importance of discovering unconscious material. The psychoanalysts would be followed by the

behavioral school's emphasis on environmental events and the cognitive school's focus on thoughts and perceptions. Psychoanalysis brought a prominence to psychology it had not known previously.

Jung expanded on Freud's beliefs about the unconscious. Rather than focus on instinctual forces, Jung chose to focus on the human being's spiritual side through his idea of the collective unconscious. His mystical beliefs about humankind's spirituality were new to the growing field of psychotherapy and have not been equalled since. Jung also took into account a person's cultural past. He proposed the idea of a universal human relatedness with his idea of common cultural symbols; however, it would be many years before this idea was fully developed.

Analytical psychotherapy is not considered a mainstream approach to psychotherapy, but it does have a small group of devoted followers. Some of Jung's techniques have been adapted into other, more common approaches. Many therapists agree with Jung's de-emphasis on specific techniques in favor of a focus on the establishment of a supportive therapy relationship. Jung moved away from the stereotypical analyst's couch in favor of face-to-face communication between doctor and patient. Many psychotherapists endorse Jung's belief that the analyst and patient should have relatively equal status and input. Jung also reduced the frequency of meeting with his patients to weekly, which is the norm today.

Jung's analytical approach changed the focus of psychotherapy from symptom relief to self-discovery. He was interested not only in patients with major problems but also in those who were dissatisfied with their mundane existences. These people were usually bright, articulate, and occupationally successful.

Jung's most lasting contributions probably have been his insights into the polarity of personality traits. The Myers-Briggs Type Indicator, based on Jungian personality descriptions, is one of the most widely used personality tests in business and industry. Jung also believed that personality changes throughout one's life, and he encouraged a continual evaluation of oneself. The idea of a "midlife crisis," a period when one reevaluates personal and occupational goals, is a product of Jung's theory. He believed that individuals continually should strive to achieve a balance in their personality and behavior.

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See also:

Cognitive Behavior Therapy; Cognitive Therapy; Music, Dance, and Theater Therapy; Person-Centered Therapy; Psychoanalysis; Psychotherapy: Goals and Techniques; Psychotherapy: Historical Approaches to Treatment.

Anorexia Nervosa and Bulimia Nervosa

Type of psychology: Psychopathology
Fields of study: Childhood and adolescent disorders

Anorexia and bulimia nervosa are disorders characterized by a distorted body image, an intense fear of becoming obese, and a desperate attempt to lose weight; these disorders most frequently occur in female adolescents, and they present serious health risks.

Principal terms

BEHAVIORAL THERAPY: a treatment that emphasizes the utilization of learning principles—the use of positive reinforcers and negative consequences—in order to change maladaptive behavior

BINGING: a period of excessive eating in which as many as 15,000 calories may be consumed in a few hours

COGNITIVE BEHAVIOR THERAPY: a therapy approach which, in addition to behavioral techniques, uses cognitive methods such as modifying maladaptive personal beliefs and expectations

DISTORTED BODY IMAGE: misperception of one's body size or shape such that one sees oneself as "fat" even though one may be underweight

HYPOTHALAMUS: a brain structure that regulates bodily functions such as hunger, hormonal balance, temperature, and sexual interest

PURGING: a method of weight reduction that most commonly involves the emptying of one's digestive organs through either self-induced vomiting or the use of laxatives

WEIGHT PHOBIA: an intense fear of gaining weight accompanied by an avoidance of eating that increases as weight loss progresses

Causes and Symptoms

Anorexia nervosa and bulimia nervosa are two of several types of eating disorders—ways of managing food and/or weight that are unhealthy. "Anorexia" literally means a "severe loss of appetite," while "nervosa" means "nervousness." Actually, the word "anorexia" is somewhat of a misnomer, given that most people with anorexia nervosa have not lost their appetites. The syndrome of anorexia nervosa consists of four prominent symptoms, according to the American Psychiatric Association. The first symptom is a failure to maintain a normal weight for one's age and height such that one's weight is less than 85 percent of what is considered normal. The weight of most anorectics (persons with anorexia nervosa) is usually much less than 85 percent of their normal weight. For example, a review of treatment studies for anorexia nervosa found that the average anorectic weighed 37 kilograms (82 pounds), 69 percent of normal weight (R. C. Qualls and J. S. Berman, 1988).

The second symptom of anorexia nervosa is an intense fear of gaining weight that increases even as the anorectic continues to lose weight. This second symptom has been labeled weight phobia by some researchers because of the anorectic's anxiety toward food and the desperate attempts she (most documented anorectics have been girls or women) makes to avoid food. The third major symptom of the syndrome is distorted body image. Distorted body image involves the anorectic seeing herself as obese when in reality she is extremely underweight. For example, when an anorectic is asked to view her body in a mirror, she is likely to comment on how fat she looks. The final symptom for women with anorexia nervosa is the absence of at least three menstrual cycles, which is caused by their being severely underweight.

Bulimia nervosa refers to the recurring cycle of binging, a period of excessive overeating, followed by purging, engaging in drastic efforts to lose the weight gained by binging. For the bulimic, binge episodes may consist of consuming up to 15,000 calories, more than five times the recommended daily number, within a few hours. Purging may be accomplished through several means including vomiting (done either by gagging oneself or through the consumption of certain drugs), the use of laxatives, strict dieting, or stringent exercising. In order to meet this first criterion of bulimia, one must engage in the binge-purge cycle at least two times per week for three months.

In addition to the recurrent binging and purging, other symptoms of bulimia nervosa include the feeling that one has no control over one's eating binges and constant concern regarding one's body shape or weight. In contrast to anorectics, who are grossly underweight, bulimics may be normal weight or even slightly obese. That is, the weight-loss effects of a bulimic's purging are often negated by the weight gained during her binging.

There are numerous potential health problems that may occur as a result of anorexia or bulimia. The health problems of anorectics include an abnormally low body temperature and blood pressure, irregular heart functioning, and bone thinning. Of those diagnosed with anorexia, approximately 4 percent die. The health complications of bulimia include the erosion of tooth enamel; sudden mineral depletions, particularly potassium reduction; irregular heart functioning; and a variety of disorders affecting digestive organs. A significantly lower number of people are thought to die from bulimia as compared to anorexia.

When compared to the most common eating disorder, obesity, anorexia and bulimia are rare. Approximately 30 percent of all Americans are reported to be obese. In contrast to the thirty out of one hundred who are obese, about one out of every one thousand Americans will have anorexia during his or her life (L. N. Robins et al., 1984). The incidence of anorexia among adolescent females, however, is about ten times higher than in the general population. In comparison, bulimia is estimated to occur in approximately three out of every one hundred Americans. Again, the incidence of bulimia among adolescent females is believed to be significantly higher.

The proposed causes of anorexia and bulimia can be grouped into the following four categories: biological, sociocultural, familial, and psychological. The notion

of biological causes of anorexia and bulimia involves the idea that anorectics and bulimics have specific brain or biochemical disturbances that lead to their inability to maintain a normal weight and/or eating pattern. The most popular biological explanation for the occurrence of anorexia and bulimia is the existence of an abnormal number of certain neurotransmitters. Neurotransmitters are chemical messengers within the brain that transmit nerve impulses between nerve cells. Potential abnormal levels of the neurotransmitters norepinephrine and serotonin have received the most investigation as causes of anorexia and bulimia.

In contrast to biological explanations, sociocultural causes are factors that are thought to exist within a society that lead certain individuals to develop anorexia or bulimia. Joan Brumberg, a historian of anorexia, has outlined the sociocultural forces of the late nineteenth and twentieth centuries that many believe promoted the increased incidence of eating disorders among women (1988). These societal forces included an emphasis on weight reduction, aesthetic self-control, and the regarding of women as sexual objects. The most prominent of these suggested cultural factors is the heightened (some would say obsessive) importance placed on being thin.

Some researchers believe that particular family types cause certain of their members to develop anorexia and bulimia. For example, family investigators believe that a family whose members are too emotionally close to one another may lead one or more family members to strive for independence by refusing to eat, according to Salvador Minuchin, Bernice Rosman, and Lester Baker. Other researchers believe that families whose members are controlling and express an excessive amount of hostility toward one another promote the occurrence of bulimia.

Psychological features make up the final category of causes for anorexia and bulimia. The most prominent of the suggested psychological causes for anorexia and bulimia are those expressed by researchers who take psychoanalytic or cognitive behavioral perspectives. For example, cognitive behavioral theorists emphasize the role of distorted beliefs in the development and continuation of anorexia and bulimia. These distorted beliefs include, “I am only attractive when I weigh a certain number of pounds [well below normal weight],” or “If I eat certain types of food [for example, carbohydrate-rich foods], I will become fat.”

Treatment and Therapy

In general, the initial treatment for anorexia occurs within the hospital setting, given the risk of death associated with this disorder. Follow-up therapy for anorexia, as well as the typical treatment for bulimia, takes place on an outpatient basis. Numerous treatments have been used for individuals afflicted by these disorders. These treatments can be broadly grouped into the categories of medical and psychological therapies.

Prior to the 1960’s, medical therapies for anorexia included such radical approaches as lobotomies and electroconvulsive therapy (ECT). The performing of a lobotomy involves the surgical removal of prefrontal portions of the brain. Electroconvulsive therapy, commonly known as “shock treatment,” involves the introduc-

tion of an electrical current into a patient's body through electrodes placed on the patient's head. These treatments were shown to be of no benefit for anorectics. Although a controversial treatment, various types of tube feeding continue to be used when a patient's malnutrition from anorexia poses an imminent risk of death. Tube feeding can be accomplished either intravenously or by inserting a tube via a patient's nasal cavity into the patient's stomach.

Since the 1960's, medications are used more often as the medical treatments of choice for anorexia and bulimia. These medications include such categories of drugs as antidepressants and major tranquilizers. For anorexia, these drugs are thought to increase eating behavior and promote weight gain by correcting imbalances in an individual's neurotransmitters. For bulimia, certain medications are thought to reduce carbohydrate cravings that precede the binge-purge cycle. In addition, antidepressant medication may be prescribed for bulimia because of the depression that often accompanies binging and purging.

Different psychological interventions also have been attempted for anorexia and bulimia. These psychological treatments include individual, family, and group interventions. One type of individual therapy for anorexia is behavioral therapy. In behavioral therapy, weight gain is promoted through the use of positive reinforcers for increases in weight and negative consequences for weight decreases or the absence of weight gain. These positive reinforcers include such things as access to telephone and visitation privileges. Negative consequences for remaining the same weight or weight loss include confinement to bed and denial of all unit privileges. Besides behavioral treatment, other types of individual therapy include cognitive behavioral, Gestalt, hypnosis, and psychoanalytic interventions.

Another common treatment for both anorexia and bulimia is family therapy. The family treatment of an anorectic patient involves the therapist seeking to change the interactions among family members that serve to maintain the self-starvation of the patient. In attempting to correct faulty family interactions, the family therapist might address the overprotectiveness of the patient by her parents or the way that family members manipulate one another's behavior. For the bulimic patient, the family therapist would seek to lower the amount of family conflict or to redirect conflict between the parents away from the bulimic.

Another frequently employed method of treatment for bulimia is group therapy. Group treatment initially involves educating bulimics about their disorder, including its negative health consequences. The group experience provides members with the opportunity to share with fellow bulimics issues regarding their eating problems and to find support from one another in overcoming bulimia. In addition, the therapist or therapists initiate discussions regarding healthy eating and exercise habits as well as specific ways to curb the binge-purge cycle.

A final issue involved in surveying the different interventions for anorexia and bulimia is the effectiveness of these treatments. The effectiveness of treatments for anorexia was addressed by Christopher Qualls and Jeffrey Berman in a 1988 study that grouped treatments reported in one hundred studies according to their type and then analyzed the effectiveness of each. The results of their study indicated that the average anorectic gains approximately 8 kilograms (18 pounds) during the initial

phase of treatment and another 5 kilograms (11 pounds) by the time of a follow-up evaluation about four years later. There were only small differences between the various types of treatment for the amount of weight produced during therapy, although behavioral treatments appeared to work faster. Less research has been conducted investigating the effectiveness of different therapies for bulimia. No one therapy for bulimia, however, whether medical or psychological, has shown clear superiority in its effectiveness as compared to other interventions.

Perspective and Prospects

Anorexia is a disorder that can be traced as far back as seven hundred years ago. The disorder was specifically written about in 1874, when Sir William Gull published an article giving the disorder its present name. Bulimia nervosa, as a disorder separate from anorexia, has received meaningful attention only since the late 1970's. There is evidence to suggest that the incidence of both disorders has increased in the last two decades. As previously discussed, the increased emphasis being placed on thinness within current Western societies represents a likely explanation for the increase in eating disorders such as anorexia and bulimia.

Another area within the study of anorexia and bulimia that has begun to receive attention is the prevention of eating disorders. In discussing the prevention of eating disorders, Catherine Shisslak and colleagues have suggested that preventive efforts should be targeted at adolescent females, given that they are at increased risk for developing an eating disorder. These efforts should focus on issues such as the physical as well as emotional and social changes that occur in maturation. Also, information regarding diet and exercise should be provided, and the connection between emotions and eating should be discussed, as should ways to resist the pressure to conform to peers' and societal expectations for one's appearance. It should also be recognized that there are those who oppose preventive efforts, including segments of the media, fashion, and exercise industries.

With evidence of the increasing prevalence of anorexia and bulimia, it is important to learn more regarding the causes and effective treatment methods of these disorders. In these areas, some of the questions that remain to be definitively answered are: Why do certain groups of people have a greater likelihood of developing anorexia and bulimia (notably, white adolescent females) as compared to other groups? Are the underlying causes of anorexia different from those of bulimia? Can a treatment with superior effectiveness be developed for those suffering with anorexia and bulimia? Anorexia and bulimia nervosa remain elusive syndromes for professionals and patients alike. It is hoped that present and future endeavors will answer these and other remaining questions regarding these disorders.

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R. Christopher Qualls

See also:

Abnormality: Behavioral Models; Abnormality: Family Models; Abnormality: Sociocultural Models; Cognitive Behavior Therapy; Eating Disorders.

Antisocial Personality

Type of psychology: Psychopathology
Fields of study: Aggression; personality disorders; personality theory

Antisocial personality is a personality disorder characterized by chronic criminal and otherwise irresponsible behaviors. Although extensively researched, it is one of the most controversial diagnostic categories, and its causes and treatment remain largely an enigma.

Principal terms

AROUSAL MODIFICATION: the technique of increasing arousal in order to decrease the motivation for antisocial behavior

CONDUCT DISORDER: a disorder, beginning in childhood, in which the rights of others and age-appropriate social norms or rules are repeatedly violated

DYSSOCIAL PSYCHOPATHY: a syndrome in which antisocial behavior results from allegiance to a culturally deviant subgroup

NEUROTIC PSYCHOPATHY: a syndrome in which antisocial behavior is a consequence of psychological conflict and turmoil

PSYCHOPATHIC PERSONALITY: a personality disorder characterized by traits such as guiltlessness, dishonesty, charm, fearlessness, callousness, and egocentricity

SOMATIZATION DISORDER: a condition characterized by multiple physical symptoms lacking any demonstrated medical basis

SUCCESSFUL PSYCHOPATHY: a category consisting of psychopathic personalities who are functioning highly

YERKES-DODSON LAW: the principle that moderate levels of arousal tend to yield optimal performance

Causes and Symptoms

By personality disorder, psychologists mean a disorder in which personality traits are rigid and maladaptive, and produce considerable impairment and distress for the individual. In the case of antisocial personality, these traits are thought to be manifested in criminal and otherwise irresponsible behaviors, which create problems for the individual and, more important, for society—hence the term "antisocial."

Antisocial personalities have a childhood history of conduct disorder—a pattern in which both the rights of others and age-appropriate social norms or rules are repeatedly violated—and continue to exhibit criminal and other irresponsible behaviors in adulthood. The major symptoms of antisocial personality include theft, school truancy, fire setting, vandalism, physical cruelty toward animals and people, financial irresponsibility, repeated lying, reckless driving, sexual promiscuity, and poor parenting. Not surprisingly, a large percentage of incarcerated criminals fulfill the criteria for this disorder.

Many of the symptoms of antisocial personality were identified by the sociolo-

gist Lee Robins in her influential work *Deviant Children Grown Up* (1966). Robins found that between 20 and 30 percent of children with conduct disorder develop antisocial personality in adulthood. There is also evidence that a subset of children with hyperactivity or attention-deficit disorder develop antisocial personality in adulthood. Nevertheless, because many of these same children have conduct disorder, it may be conduct disorder, rather than hyperactivity, that is the major determinant of antisocial personality.

In addition to the behaviors mentioned above, antisocial personalities have a number of other psychological and interpersonal difficulties. For example, they have high rates of alcohol and drug abuse, divorce, venereal disease, out-of-wedlock pregnancies, and depression. In addition, individuals with this disorder are more likely than those in the general population to die prematurely from violent crimes and accidents. Antisocial personality is also associated with criminal recidivism: Individuals with this disorder who are released from prison are at high risk for subsequent incarceration.

In the United States, about 3 percent of males and 1 percent of females have antisocial personalities. The reason for this sex difference is unknown; some authors have speculated that females who are predisposed to antisocial personality may be likely to develop somatization disorder, a condition characterized by multiple physical complaints lacking any demonstrated medical basis. Indeed, somatization disorder is found among many of the female relatives of antisocial personalities. Thus, somatization disorder may be an alternative manifestation of antisocial personality that is found primarily among females, although considerably more research will be needed to corroborate this hypothesis. Antisocial personality is also associated with low social class, although the causes of this relationship are unknown.

Many antisocial personalities possess a constellation of personality traits known as the psychopathic personality. In his classic book *The Mask of Sanity* (1941), psychiatrist Hervey Cleckley provided a detailed description of this syndrome. According to Cleckley, psychopathic personalities (or, as they are sometimes called, psychopaths) tend to be superficially charming individuals who are relatively free of anxiety and seem possessed of excellent reason. Nevertheless, they also tend to be guiltless, callous, dishonest, and self-centered persons who rarely learn from their mistakes or take responsibility for their behavior.

Some psychologists believe that psychopathic personality is a more valid category than antisocial personality. According to these researchers, many antisocial personalities lack the traits characteristic of psychopathic personality, and instead exhibit antisocial behavior for a variety of other reasons. For example, some antisocial personalities may fall into a category

Possible Symptoms of Conduct Disorders in Children and Adolescents

- lying
- stealing
- destroying property
- misbehaving sexually
- expressing their anger inappropriately
- often breaking rules or laws
- showing physical and verbal aggressive behavior with other children and/or to adults

known as dyssocial psychopathy, a syndrome in which antisocial behavior results from allegiance to a culturally deviant subgroup. Many gang delinquents or members of organized crime could probably be classified in this group. The behavior of still other antisocial personalities may result from neurotic psychopathy, a syndrome in which antisocial behavior is a consequence of internal psychological conflict and turmoil. Many neurotic psychopaths are probably socially anxious individuals who inhibit their anger for long periods of time and then erupt intermittently but violently.

Conversely, some critics of the antisocial personality diagnosis have argued that many psychopaths do not fulfill the criteria for antisocial personality. Indeed, some psychopaths may function highly in society, and would thus not be detected by the antisocial personality criteria in many cases. Cathy Spatz Widom has found that many persons who possess the traits described by Cleckley can be found outside prisons, and in some cases have socially valued occupations (for example, corporate executive). Further study of these "successful" psychopaths may shed light on factors that allow individuals at risk for antisocial personality to avoid legal and interpersonal problems.

One of the most active areas of research on antisocial personality concerns possible causes of the disorder. Psychologist David Lykken, for example, has theorized that the behavior of many antisocial personalities, particularly those who are psychopaths, can be traced to fearlessness.

Lykken has found that, compared with other individuals with antisocial behavior and with "normals," psychopaths tend to exhibit less sweating of the palms prior to a buzzer that has been repeatedly paired with a painful electric shock. Robert Hare has similarly shown that psychopaths tend to show relatively little palmar sweating during the countdown period prior to a painful electric shock or jarring blast of white noise. Because palmar sweating is often indicative of fear or arousal, the findings of Lykken and Hare can be interpreted to mean that psychopaths are not frightened or aroused by signals of impending punishment. This, in turn, might explain why many psychopaths engage in repeated antisocial behavior: The warning signs that would deter most people from performing such acts have little impact upon the psychopath. The average child or adult is prevented from committing antisocial acts largely by signals that punishment or danger is imminent: a parent or teacher saying "No" as a child reaches for a forbidden piece of candy, the watchful eye of a museum guard as one passes by a valuable painting, a light turning yellow as one approaches a busy intersection. If such signals arouse little or no fear in a person, however, his or her threshold for committing antisocial acts will surely be lowered.

Lykken also constructed a "mental maze" task, in which subjects were required to learn a complex series of lever presses. On each trial, some errors were punished with painful shock, whereas others were not. Lykken found that, compared with other subjects, psychopaths did not make more errors overall, indicating that they can learn certain tasks as well as other individuals. Nevertheless, Lykken found that psychopaths made more punished errors than other individuals, suggesting that they have difficulty learning from punishment. Again, this finding is consistent

with the fearlessness hypothesis, because the capacity to benefit from punishment is largely dependent upon the capacity to become frightened of this punishment. Moreover, this finding has important implications; the psychopath's failure to learn from punishment in the laboratory may be a useful model for the antisocial personality's recidivism in the real world.

An alternative hypothesis for the behavior of antisocial personalities is that these individuals have unusually low levels of arousal. According to the Yerkes-Dodson law, moderate levels of arousal are optimal for performance and psychological functioning. Thus, as Herbert Quay and other psychologists have argued, many of the thrill-seeking and dangerous behaviors of antisocial personalities may represent attempts to bring their arousal to higher and thus more optimal levels. George Skrzypek has found that psychopathic delinquents, compared with other delinquents, have a greater preference for complex and novel stimuli. This is consistent with Quay's hypothesis, because such stimuli would be expected to increase arousal. Skrzypek also found that after both groups were placed in sensory isolation, psychopaths' preference for complex and novel stimuli increased more compared with nonpsychopaths.

There is considerable evidence that antisocial personality is influenced by genetic factors. Identical twins (who share all their genes) with antisocial personality are much more likely than are fraternal twins (who share only half their genes on average) to have co-twins with the disorder. Nevertheless, many of the co-twins of identical twins with antisocial personality do not have the disorder, which indicates that environmental factors play an important role in the development of antisocial personality. In addition, adopted children whose natural parents had antisocial personality are more likely to develop the disorder than are adopted children whose natural parents did not. Again, this is consistent with a genetic influence upon antisocial personality.

Nevertheless, several important questions concerning the genetics of antisocial personality remain. First, it is not known what factors are being genetically transmitted. Second, it is not known whether this genetic influence applies to all, or only some, individuals with antisocial personality. For example, this genetic influence might only play a role in individuals with psychopathic personality. Third, it is not known how environmental factors combine or interact with genetic factors to produce antisocial personality. These three questions are likely to occupy researchers for a number of years to come.

Treatment and Therapy

Little is known about the treatment of antisocial personality, except that no clearly effective treatment has been found. A number of therapies have been attempted, including psychoanalysis, behavior therapy, group therapy, and medication, but there is little evidence that any of them have been especially successful. As the symptoms of antisocial personality begin early in life and are easily identifiable, it may be prevention, rather than treatment, that holds the greatest promise for reducing the prevalence of this disorder.

One implication of findings about low arousal is that at least some antisocial

personalities might benefit from treatments that boost their arousal levels. For example, antisocial personalities could be encouraged to find occupations (for example, combat soldier) or avocations (for example, skydiving) that might provide outlets for their risk-taking tendencies. Similarly, some researchers have explored the possibility that some antisocial personalities might be helped by stimulant medication. Stanley Schachter and Bibb Latane found that when psychopaths were asked to perform Lykken's mental-maze task while taking adrenaline, a stimulant drug, they were as successful as were nonpsychopaths at learning to avoid punishment. Nevertheless, as these "arousal modification" approaches have not been adequately researched, their potential as treatments for antisocial personality remains speculative.

What happens to antisocial personalities over time? There is evidence that many such individuals "burn out" in middle age: Their antisocial behaviors decrease in frequency and severity in later adulthood. The reasons for this burnout phenomenon are unclear, but it may be a consequence of the decline in activity level and energy seen in most individuals with age.

Perspective and Prospects

Although the term "antisocial personality" did not enjoy widespread currency until the latter half of the twentieth century, individuals with chronic antisocial symptoms have been described by a variety of labels over the years. In 1809, Philippe Pinel discussed a syndrome called *manie sans délire*, or mania without delusion. Such individuals, according to Pinel, are driven by strong instinctual forces but maintain good contact with reality. In 1835, James Pritchard coined the term "moral insanity" to refer to a condition characterized by severe deficits in ethical behavior.

In 1891, German psychiatrist August Koch referred to a group of conditions called "psychopathic inferiorities." In doing so, Koch broadened the concept of the disorder to include a diverse spectrum of abnormalities, not all of which were characterized by moral depravity. Koch's tradition was followed by the great German classifier Kurt Schneider, who in 1923 described a wide variety of psychopathic personalities, each of which was considered to be an exaggeration of a normal personality style. Thus, the German conceptualization was generally inclusive and viewed psychopathic personality as a set of conditions that created problems for the individual, society, or both.

It was authors such as Cleckley and Benjamin Karpman who were largely responsible for shaping contemporary notions of psychopathic personality. These authors emphasized personality traits as the key features of the disorder, and they de-emphasized antisocial and criminal behaviors. This view was reflected in the second edition of the American Psychiatric Association's *Diagnostic and Statistical Manual of Mental Disorders* (DSM-II) in 1968, which focused upon personality traits such as guiltlessness and selfishness as the primary criteria for the disorder.

This personality-based approach, however, came under attack in the 1970's and 1980's for its subjectivity. After all, what one diagnostician might view as a pathological absence of guilt might be viewed by another as a healthy absence of

self-criticism. Thus, in 1980, the third edition of the *Diagnostic and Statistical Manual of Mental Disorders* (DSM-III) introduced "antisocial personality disorder," a new diagnosis in which explicit references to personality traits were all but expunged. Instead, the emphasis in DSM-III (as well as in the 1994 fourth edition, DSM-IV) was upon easily agreed-upon transgressions against society. The advantage of this new approach was its objectivity: Clinicians could easily agree upon whether an individual had committed a robbery or driven while intoxicated.

Although advocates of this behavior-based approach contend that their diagnosis identifies a homogeneous group of individuals, many researchers remain convinced that lumping together virtually all chronically antisocial individuals under a single rubric is bound to fail. Nevertheless, advocates of these two approaches agree upon one thing: Their disagreement is more than semantic. Is the smooth confidence artist who bilks others without remorse fundamentally different from the loyal gang member who sacrifices his or her livelihood for the good of the group? The answer to this and related questions will almost certainly have profound implications for psychologists' conceptualizations of antisocial personality, as well as for their approaches to understanding and treating it.

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See also:

Addictive Personality and Behaviors; Alcoholism; Attention-Deficit Disorder; Borderline, Histrionic, and Narcissistic Personalities; Juvenile Delinquency; Personality: Psychophysiological Measures; Substance Abuse.

Anxiety Disorders

Type of psychology: Psychopathology; stress
Fields of study: Anxiety disorders; biology of stress

Anxiety is heightened fear or tension that causes psychological and physical distress. The American Psychiatric Association recognizes several types of anxiety disorders, which can be treated with medications or through counseling.

Principal terms

ANXIETY: abnormal fear or tension, which may occur without any obvious trigger
BRAIN IMAGING: any of several techniques used to visualize anatomic regions of the brain, including X rays, magnetic resonance imaging, and positron emission tomography
COMPULSION: a repetitive, stereotyped behavior performed to ward off anxious feelings
GABA/BENZODIAZEPINE RECEPTOR: an area on a nerve cell to which gamma aminobutyric acid (GABA) attaches and that causes inhibition (quieting) of the nerve; benzodiazepine drugs enhance the attachment of GABA to the receptor
OBSESSION: a recurrent, unwelcome, and intrusive thought
PANIC: a sudden episode of intense fearfulness

Causes and Symptoms

Anxiety is a subjective state of fear, apprehension, or tension. In the face of a naturally fearful situation, anxiety is a normal and understandable condition. When anxiety occurs without obvious provocation or is excessive, however, anxiety may be said to be abnormal or pathological (existing in a disease state). Normal anxiety is useful because it provides an alerting signal and improves physical and mental performance. Excessive anxiety results in a deterioration in performance and in emotional and physical discomfort.

There are several forms of pathological anxiety, known collectively as the anxiety disorders. As a group, they constitute the fifth most common medical or psychiatric disorder. In the United States, 14.6 percent of the population will experience anxiety at some point in their lives. More women suffer from anxiety disorders than do men, by a 2:1 ratio.

The anxiety disorders are distinguished from one another by characteristic clusters of symptoms. These disorders include generalized anxiety disorder, panic disorder, obsessive-compulsive disorder, phobias, adjustment disorder with anxious mood, and post-traumatic stress disorder. The first three disorders are characterized by anxious feelings that may occur without any obvious precipitant, while the latter three are closely associated with anxiety-producing events in a person's life.

Generalized anxiety disorder is thought to be a biological form of anxiety disorder in which the individual inherits a habitually high level of tension or

Possible Symptoms of Generalized Anxiety Disorder

- inability to relax
- inability to fall asleep or stay asleep
- trembling or irritability
- twitching or muscle tension
- headaches
- sweating or hot flashes
- feeling lightheaded or out of breath
- feeling nauseated
- going to the bathroom frequently
- feeling tired or unable to concentrate

anxiety that may occur even when no threatening circumstances are present. Generally, these periods of anxiety occur in cycles which may last weeks to years. The prevalence is unknown, but this disorder is not uncommon. The male-to- female ratio is nearly equal.

Evidence suggests that generalized anxiety disorder is related to an abnormality in a common neurotransmitter receptor complex found in many brain neurons. These complexes, the GABA/benzodiazepine receptors, decrease the likelihood that a neuron will transmit an electrochemical signal, resulting in a calming effect on the portion of the brain in which they are found. These receptors exist in large numbers in the cerebral cortex (the outer layer of the brain), the hippocampus (the sea horse-shaped structure inside the temporal lobe), and the amygdala (the almond-shaped gray matter inside the temporal lobe). The hippocampus and amygdala are important parts of the limbic system, which is significantly involved in emotions. Benzodiazepine drugs enhance the efficiency of these receptors and have a calming effect. In contrast, if these receptors are inhibited, feelings of impending doom result.

Panic disorder is found in 1.5 percent of the United States population, and the female-to-male ratio is 2:1. This disorder usually begins during the young adult years. Panic disorder is characterized by recurrent and unexpected attacks of intense fear or panic. Each discrete episode lasts about five to twenty minutes. These episodes are intensely frightening to the individual, who is usually convinced he or she is dying. Because people who suffer from panic attacks are often anxious about having another one (so-called secondary anxiety), they may avoid situations in which they fear an attack may occur, in which help would be unavailable, or in which they would be embarrassed if an attack occurred. This avoidance behavior may cause restricted activity and can lead to agoraphobia, the fear of leaving a safe zone in or around the home. Thus, agoraphobia (literally, "fear of the marketplace") is often secondary to panic disorder.

Panic disorder appears to have a biological basis. In those people with panic disorder, panic attacks can often be induced by sodium lactate infusions, hyperventilation, exercise, or hypocalcemia (low blood calcium). Normal people do not experience panic attacks when these triggers are present. Highly sophisticated scans show abnormal metabolic activity in the right parahippocampal region of the brain of individuals with panic disorder. The parahippocampal region, the area surrounding the hippocampus, is involved in emotions and is connected by fiber tracts to the locus ceruleus, a blue spot in the pons portion of the brain stem that is involved in arousal.

In addition to known biological triggers for panic attacks, emotional or psycho-

logical events may also cause an attack. To be diagnosed as having panic disorder, however, a person must experience attacks that arise without any apparent cause. The secondary anxiety and avoidance behavior often seen in these individuals result in difficulties in normal functioning. There is an increased incidence of suicide attempts in people with panic disorder; up to one in five have reported a suicide attempt at some time. The childhoods of people with panic disorder are characterized by an increased incidence of pathological separation anxiety and/or school phobia.

Obsessive-compulsive disorder (OCD) is an uncommon anxiety disorder with an equal male-to-female ratio. It is characterized by obsessions (intrusive, unwelcome thoughts) and compulsions (repetitive, often stereotyped behaviors that are performed to ward off anxiety). The obsessions in OCD are often horrifying to the afflicted person. Common themes concern sex, food, aggression, suicide, bathroom functions, and religion. Compulsive behavior may include checking (such as repeatedly checking to see if the stove is off or the door is locked), cleaning (such as repetitive handwashing or the wearing of gloves to turn a doorknob), or stereotyped behavior (such as dressing by using an exact series of steps that cannot be altered). Frequently, the compulsive behaviors must be repeated many times. Sometimes, there is an exact, almost magical number of times the behavior must be done in order to ward off anxiety. Although people with OCD have some conscious control over their compulsions, they are driven to perform them because intense anxiety results if they fail to do so.

The most common psychological theory for OCD was proposed by Sigmund Freud, who believed that OCD symptoms were a defense against unacceptable unconscious wishes. Genetic and brain imaging studies, however, suggest a biological basis for this disorder. Special brain scans have shown increased metabolism in the front portion of the brain in these patients, and it has been theorized that OCD results from an abnormality in a circuit within the brain (the cortical-striatal-thalamic-cortical circuit). Moreover, OCD is associated with a variety of known neurological diseases, including epilepsy, brain trauma, and certain movement disorders.

Phobias are the most common anxiety disorders. A phobia is an abnormal fear of a particular object or situation. Simple phobias are fears of specific, identifiable triggers such as heights, snakes, flying in an airplane, elevators, or the number thirteen. Social phobia is an exaggerated fear of being in social settings where the phobic person fears he or she will be open to scrutiny by others. This fear may result in phobic avoidance of eating in public, attending church, joining a social club, or participating in other social events. Phobias are more common in men than in women, and they often begin in late childhood or early adolescence.

In classic psychoanalytic theory, phobias were thought to be fears displaced from one object or situation to another. For example, fear of snakes may be a displaced fear of sex because the snake is a phallic symbol. It was thought that this process of displacement took place unconsciously. Many psychologists now believe that phobias are either exaggerations of normal fears or that they develop accidentally, without any symbolic meaning. For example, fear of elephants may

arise if a young boy at a zoo is accidentally separated from his parents. At the same time that he realizes he is alone, he notices the elephants. He may then associate elephants with separation from his parents and fear elephants thereafter.

Adjustment disorder with anxious mood is an excessive or maladaptive response to a life event in which the individual experiences anxiety. For example, an individual may become so anxious after losing a job that he or she is unable to eat, sleep, or function and begins to entertain the prospect of suicide. While anxiety is to be expected, this person has excessive anxiety (the inability to eat, sleep, or function) and a maladaptive response (the thought of suicide). The exaggerated response may be attributable to the personality traits of the individual. In this example, a dependent person will be more likely to experience an adjustment disorder than a less dependent person.

Adjustment disorders are very common. In addition to adjustment disorders with anxious mood, people may experience adjustment disorders with depressed mood, mixed emotional features, disturbance of conduct, physical complaints, withdrawal, or inhibition in school or at work. These disorders are considered to be primarily psychological.

Post-traumatic stress disorder (PTSD) is similar to adjustment disorder because it represents a psychological reaction to a significant life event. PTSD only occurs, however, when the precipitating event would be seriously emotionally traumatic to a normal person, such as war, rape, natural disasters such as major earthquakes, or airplane crashes. In PTSD, the individual suffers from flashbacks to the precipitating event and "relives" the experience. These episodes are not simply vivid remembrances of what happened but a transient sensation of actually being in that circumstance. For example, a Vietnam War veteran may literally jump behind bushes when a car backfires.

People who suffer from PTSD usually are anxious and startle easily. They may be depressed and have disturbed sleep and eating patterns. They often lose normal interest in sex, and nightmares are common. These individuals usually try to avoid situations that remind them of their trauma. Relationships with others are often strained, and the patient is generally pessimistic about the future.

In addition to the anxiety disorders described, abnormal anxiety may be caused by a variety of drugs and medical illnesses. Common drug offenders include caffeine, alcohol, stimulants in cold preparations, nicotine, and many illicit drugs, including cocaine and amphetamines. Medical illnesses that may cause anxiety include thyroid disease, heart failure, cardiac arrhythmias, and schizophrenia.

Treatment and Therapy

When an individual has difficulty with anxiety and seeks professional help, the cause of the anxiety must be determined. Before the etiology can be determined, however, the professional must first realize that the patient has an anxiety disorder. People with such disorders often complain primarily of physical symptoms that result from the anxiety. These symptoms may include motor tension (muscle tension, trembling, and fatigue) and autonomic hyperactivity (shortness of breath, palpitations, cold hands, dizziness, gastrointestinal upset, chills, and frequent urination).

When an anxiety disorder is suspected, effective treatment often depends on an accurate diagnosis of the type of anxiety disorder present. A variety of medications can be prescribed for the anxiety disorder. In addition, several types of psychotherapy can be used. For example, patients with panic disorder can be educated about the nature of their illness, reassured that they will not die from it, and taught to ride out a panic attack. This process avoids the development of secondary anxiety, which complicates the panic attack. Phobic patients can be treated with systematic desensitization, in which they are taught relaxation techniques and are given graded exposure to the feared situation so that their fear lessens or disappears.

The origin, diagnosis, and treatment of anxiety disorders can best be portrayed through case examples. Three fictional cases are described below to illustrate typical anxiety disorder patients.

Ms. Smith is a twenty-four-year-old married mother of two young children. She works part-time as a bookkeeper for a construction company. Her health had been good until a month ago, when she began to experience spells of intense fearfulness, a racing heart, tremors of her hands, a dry mouth, and dizziness. The spells would come on suddenly and would last between ten and fifteen minutes. She was convinced that heart disease was causing these episodes and was worried about having a heart attack. As a result, she consulted her family physician.

Physical examination, electrocardiogram, and laboratory studies were all normal. Her physician had initially considered cardiac arrhythmia (abnormal rhythm of the heartbeat) as a cause but diagnosed panic disorder on the basis of Ms. Smith's history and the outcome of the tests. Treatment consisted of medication and comforting explanations of the nonfatal nature of the disorder. Within three weeks, the panic attacks stopped altogether.

This case illustrates many common features of panic disorder. The patient is a young adult female with classic panic attacks striking "out of the blue." Most patients fear that they are having a heart attack or a stroke or that they are going insane. Typically, they present their symptoms to general medical physicians rather than to psychiatrists. Treatment with medication and simple counseling techniques are usually successful.

Mr. Jones is a thirty-five-year-old single man who works as an accountant. He has always been shy and has adopted leisure activities that he can do alone, such as reading, gardening, and coin collecting. As a child, he was bright but withdrawn. His mother described him as "high-strung," "a worrier," and "easily moved to tears." Recently, he has been bothered by muscle achiness, frequent urination, and diarrhea alternating with constipation. He thinks constantly about his health and worries that he has cancer.

Mr. Jones makes frequent visits to his doctor, but no illness is found. His doctor tells him that he worries too much. The patient admits to himself that he is a worrier and has been his whole life. He ruminates about the details of his job, his health, his lack of friends, the state of the economy, and a host of other concerns. His worries make it hard for him to fall asleep at night. Once asleep, however, he sleeps soundly. Finally, Mr. Jones is given a tranquilizer by his physician. He finds that he feels calm, no longer broods over everything, falls asleep easily, and has relief

from his physical symptoms. To improve his social functioning, he sees a psychiatrist, who diagnoses a generalized anxiety disorder and an avoidant (shy) personality disorder.

This case illustrates many features of patients with generalized anxiety disorder. These individuals have near-continuous anxiety for weeks or months that is not clearly related to a single life event. In this case, some of the physical manifestations of anxiety are prominent (muscle tension, frequent urination, and diarrhea). Difficulty falling asleep is also common with anxiety. In contrast, patients who are depressed will often have early morning wakening. In this case example, the patient also has a concomitant shy personality that aggravates his condition. Such a patient usually benefits from treatment. Medication may be required for many years, although it may be needed only during active cycles of anxiety. Because some patients attempt to medicate themselves with alcohol, secondary alcoholism is a potential complication.

Ms. Johnson is a forty-two-year-old married homemaker and mother of four children. She works part-time in a fabric store as a salesclerk. She is friendly and outgoing. She has also been very close with her family, especially her mother. Ms. Johnson comes to her family physician because her mother has just had a stroke. Because her mother lives on the other side of the country, Ms. Johnson needs to take an airplane if she is to get to her mother's bedside quickly. Unfortunately, Ms. Johnson has a long-standing fear of flying; even the thought of getting into an airplane terrifies her. She has not personally had a bad experience with flying but remembers reading about a plane crash when she was a teenager. She denies any other unusual fears and otherwise functions well.

Her family physician refers her to a psychologist for systematic desensitization to relieve her phobia for future situations. As a stop-gap measure for the present, however, she is taught a deep-muscle relaxation technique, is shown videotapes designed to reduce fear of flying, and is prescribed a tranquilizer and another drug to reduce the physical manifestations of anxiety (a beta-blocker). This combination of treatments allows her to visit her mother immediately and, eventually, to be able to fly without needing medication.

This case illustrates a typical patient with an isolated phobia. Phobias are probably the most common anxiety disorders. Treatments such as those described above are usually quite helpful.

Perspective and Prospects

Anxiety has been recognized since antiquity and was often attributed to magical or spiritual causes, such as demonic possession. Ancient myths provided explanations for fearful events in people's lives. Pan, a mythological god of mischief, was thought to cause frightening noises in forests, especially at night; the term "panic" is derived from his name. An understanding of the causes of panic and other anxiety disorders has evolved over the years.

Sigmund Freud (1856-1939) distinguished anxiety from fear. He considered fear to be an expected response to a specific, identifiable trigger, whereas anxiety was a similar emotional state without an identifiable trigger. He postulated that anxiety

resulted from unconscious, forbidden wishes that conflicted with what the person believed was acceptable. The anxiety that resulted from this mental conflict was called an "anxiety neurosis" and was thought to result in a variety of psychological and physical symptoms. Psychoanalysis was developed to uncover these hidden conflicts and to allow the anxiety to be released.

Freud's theories about anxiety are no longer universally accepted. Many psychiatrists now believe that several anxiety disorders have a biological cause and that they are more neurological diseases than psychological ones. This is primarily true of generalized anxiety disorder, panic disorder, and obsessive-compulsive disorder. It is recognized that anxiety can also be triggered by drugs (legal and illicit) and a variety of medical illnesses.

Psychological causes of anxiety are also recognized. Adjustment disorder with anxious mood, phobias, and post-traumatic stress disorder are all thought to be primarily psychological disorders. Unlike with Freud's conflict theory of anxiety, most modern psychiatrists consider personality factors, life experiences, and views of the world to be the relevant psychological factors in such anxiety disorders. Nonpharmacological therapies are no longer designed to uncover hidden mental conflicts; they provide instead support. Specific therapies include flooding (massive exposure to the feared situation), systematic desensitization (graded exposure), and relaxation techniques.

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See also:

Agoraphobia and Panic Disorders; Depression; Grief and Guilt; Hypochondriasis, Conversion, Somatization, and Somatoform Pain; Manic-Depressive Disorder; Midlife Crises; Neurosis; Obsessive-Compulsive Disorder; Paranoia; Phobias; Psychoanalysis; Psychosomatic Disorders; Sexual Dysfunction; Stress; Stress: Coping Strategies.

Aphasias

Type of psychology: Language
Fields of study: Cognitive processes

Aphasias include a variety of conditions in which a partial or total loss of the ability to understand or produce language-based material occurs; the deficits can be in speech, reading, or writing. Knowledge of aphasias can aid in the localization of brain injuries. An understanding of aphasias is also important because they cause communication problems that require treatment.

Principal terms

EQUIPOTENTIALITY: a theory of cerebral functioning that holds that, although sensory input may be localized, perception involves the whole brain

EXPRESSIVE APHASIA: severe impairment of previously intact language-production abilities as a result of brain injury or cerebral dysfunction

GLOBAL APHASIA: substantial impairments in both language production and language comprehension

INTERACTIONIST THEORY: the idea that perception and behavioral output are based on interactions between basic components; although component processes are localized, there is redundancy in regard to function

LOCALIZATIONIST THEORY: the idea that specific sensory, perceptual, and behavioral processes are controlled by particular cerebral structures and/or areas of the brain

PARAPHASIA: impairment in which articulation is intact but unintended sounds are substituted for others (phonemic paraphasia) or words are substituted (semantic paraphasia)

RECEPTIVE APHASIA: severe impairment of previously intact language-comprehension abilities as a result of brain injury or other cerebral dysfunction

Causes and Symptoms

Nearly all definitions of aphasia agree on the following four points: Aphasia refers to a condition in which a person suffers a loss in the ability to understand or produce language-referenced material; the deficits can be in speech, reading, and/or writing; the impairment is assumed to be caused by cerebral rather than peripheral impairments; and aphasias represent a devastation of a previously manifested ability rather than a developmental failure.

A fifth point, included or implied in most descriptions of aphasias, is that they occur as a result of structural damage or disease processes that directly affect the brain—an organic etiology. This view is taken because functional mental disorders that produce aphasic-like symptoms are best understood in the context of the psychological and environmental events that produce them. Aphasias, however, are best comprehended in relationship to the physical injuries and structural changes that cause their appearance. Furthermore, interventions that would be effective for

the treatment of aphasias would have little or no relevance for the amelioration of aphasic-like symptoms that result from functional causes.

Vascular disorders, particularly strokes, are the most frequent cause of aphasia. Other conditions likely to lead to aphasia include traumatic head injuries, brain tumors, infections, toxins, and dementia.

It is left-hemisphere damage that is most commonly associated with aphasia. For most persons, language abilities are localized in the left hemisphere of the brain. Damage to the right side of the brain seldom results in any noticeable effect on language skills. The fact that left-handers sometimes show speech impairments following injury to the right side of the brain has often been taken as evidence that lefthanders are right-brain dominant in regard to language. Research has failed to support this contention. Most left-handers show bilateral or left-hemisphere dominance for language, with no more than 15 percent showing primary control of speech via the right hemisphere.

Aphasias can be divided into three general categories: expressive aphasias, receptive aphasias, and mixed or global aphasias. Most persons with aphasia show a mixture of expressive and receptive symptoms.

Expressive aphasia is often referred to as Broca's aphasia, motor aphasia, nonfluent aphasia, executive aphasia, or verbal aphasia. Expressive aphasia can be considered to subsume subfluent aphasia, anarthric aphasia, expressive dysprosody, kinetic (efferent) motor aphasia, speech apraxia, subcortical motor aphasia (pure word-dumbness), transcortical motor aphasia (dynamic aphasia), conduction (central) aphasia, anomic (amnestic or nominal) aphasia, and agraphia.

Expressive aphasia describes a condition in which language comprehension remains intact but speech—and quite often the ability to write—is impaired. People who suffer from expressive aphasia understand what is being asked of them, and their ability to read is unaffected; they have difficulty, however, communicating their understanding.

When expressive aphasia is extreme, the affected person may be totally unable to speak (aphonia) or may be able to speak only in so distorted a way that he or she becomes incomprehensible. Still, as is the case with all other forms of aphasia, singing and swearing are generally preserved.

Paraphasias are a common form of expressive aphasia. Paraphasia differs from articulation problems, which are also quite prominent. When a person with expressive aphasia has difficulties with articulation, he or she has trouble making recognizable speech sounds. Paraphasia, on the other hand, refers to a condition in which articulation is intact but unintended syllables, words, or phrases are inserted. For example, one patient, in referring to his wife, always said "my dog."

Telegraphic speech, in which speech is reduced to its most elemental aspects, is frequently encountered in expressive aphasia. In telegraphic speech, the meaning is often clear; however, communications are reduced to the bare minimum and consist of simple noun-verb phrases.

Verbal fluency, the capacity to produce uninterrupted phrases and sentences, is typically adversely affected in expressive aphasias. As a result of word-finding difficulties, speech may take on a halting and labored character.

Receptive aphasia is often referred to as Wernicke's aphasia, sensory aphasia, fluent aphasia, or agnosia. Receptive aphasia can be considered to subsume semantic aphasia, jargon aphasia, visual aphasia (pure word-blindness), transcortical sensory aphasia (isolation syndrome), syntactical aphasia, and alexia. In receptive aphasia, speech is generally fluent, with few, if any, articulatory problems; however, deficits in language comprehension are always present.

While fluent, the speech of a person with receptive aphasia is seldom normal. People who have receptive aphasia may insert nonwords—neologisms—into their communications, and in severe cases their communications may contain nothing but jargon speech. For example, one patient, when asked what he had for breakfast, responded, "Eating and food. Got no more heavy come to there. No come good, very good, in morning."

Unlike people who have expressive aphasia, who generally show great distress in regard to their disorder, people who have receptive aphasia may appear oblivious to their disorder. They may produce lengthy nonsensical utterances and then look at the listener as if confused by the listener's lack of comprehension.

Global aphasia describes a condition in which there is a mixture of receptive and expressive deficits. Global aphasia is typically associated with less focalized brain injury. Although comprehension is generally less impaired than production in global aphasia, this disorder does not fit neatly into either the expressive or the receptive category. The prognosis is generally much poorer for persons with global aphasia than for those with purely receptive or expressive deficits.

An appreciation for the nature and extent of aphasias is important because such knowledge can facilitate the identification of disease processes that may be affecting cerebral functioning, can assist in the localization of brain injuries, and can provide information that must be considered in making post-discharge placements. Finally, and perhaps most important, knowledge of aphasias is needed because they cause significant communication deficits that require treatment.

A variety of conditions can lead to aphasic-like symptoms: functional mental disorders, peripheral nervous system damage, peripheral motor impairments, congenital disorders, degenerative disease processes of the brain, cerebral vascular injury, central nervous system toxins, epilepsy, migraine, brain tumors, central nervous system infections, and cerebral trauma. Being able to discriminate between true aphasias (those caused by cerebral complications) and aphasic-like symptoms brought on by other causes can enable the selection of the most effective treatment and improve prognostic prediction. For example, depression, Parkinson's disease, and certain focal lesions can cause persons to appear emotionally unreactive (flat affect) and speak in a manner that lacks expressive intensity and intonation (dysprosody). The treatments of choice for these disorders are substantially different, and some interventions that would be recommended for one disorder would be contraindicated for another. Similarly, knowing that cerebral hemorrhage is most often associated with global aphasia and diffuse tissue damage—whereas cerebral embolisms typically damage areas served by the left middle cerebral artery, resulting in more specific aphasias—has implications in regard to patient monitoring, treatment, and prognosis.

The interrelationships between aphasias and localized brain injuries have important ramifications. Among other implications, knowing the neural basis for language production and processing can facilitate the identification of the best candidate sites for surgical intervention and can provide clues regarding whether a disease process has been arrested or continues to spread. For example, an aphasia that begins with clear articulation and no identifiable deficits in language production would be consistent with conduction aphasia, and it might be assumed that damage to the arcuate fasciculus had occurred. If, over the course of time, the person began to manifest increasing difficulty with speech comprehension but articulation continued to appear intact, it could be inferred that damage was spreading downward and affecting a broader region of the temporal lobe. Such information would have important treatment and prognostic ramifications.

Given the importance of language and the ability to communicate in managing daily affairs, it can be seen that having information concerning the nature and the extent of aphasia is an important consideration that must be taken into account when making postdischarge plans. On the one hand, if the person's deficits are purely expressive in nature, it can be assumed that he or she will more likely be able to manage his or her daily affairs and will be more capable of managing independent placement. On the other hand, persons with receptive aphasia, despite wishes to the contrary, may have to be referred to a more restrictive environment. Not being able to understand the communications of others and perhaps manifesting deficits in safety and judgment require that the person with receptive aphasia be carefully assessed to ascertain the degree to which he or she is competent to manage his or her affairs.

Treatment and Therapy

Aphasias cause significant communication problems that require treatment and amelioration. While there is no doubt that considerable spontaneous recovery takes place in regard to aphasia, research shows that treatment can have a facilitating effect. Furthermore, the earlier treatment is initiated, the more profound its effects.

Under most circumstances, therapy for aphasia is one element of a more comprehensive treatment process. Aphasia seldom occurs in isolation, and, depending on the type of damage, one is likely to see paresis, memory deficits, apraxias, agnosias, and various difficulties related to information processing occurring in conjunction with the aphasia. As a result, the person with aphasia is likely to be treated by an interdisciplinary team. The team will typically consist of one or more physicians, nurses, nursing support personnel, physical therapists, occupational therapists, speech therapists, a rehabilitation psychologist or neuropsychologist, a clinical psychologist, and one or more social workers. Each team member is expected to have an area of expertise and specialization, but the team approach requires that team members work together and, individually and collectively, support each discipline's treatment goals.

The most common treatments for the aphasic person are systematic stimulation, behavioral teaching programs, deblocking, and compensation therapy. Systematic stimulation involves the use of everyday objects and everyday situations to stimu-

late language production and to facilitate language comprehension. Behavioral teaching programs are similar to systematic stimulation but are more organized, are designed more precisely to take into account known structural damage, and frequently employ behavior modification techniques. Deblocking, a less frequently used therapy, consists of stimulating intact language functions as a vehicle for encouraging rehabilitation of damaged processes. Compensation therapy includes teaching the person alternative communication strategies and utilizing intact abilities to circumvent the functional limitations that result from her or his aphasia.

Perspective and Prospects

The study of aphasias dates back more than four thousand years. An Egyptian papyrus dated between 3000 and 2500 B.C.E. provides a case example of language deficits following traumatic head injury.

The Greeks variously subscribed to hypotheses that mental processes were located in the brain or the heart. Not until the time of the physician Galen (130-201 C.E.) did the brain hypothesis gain full sway. Galen based his arguments on dissection and clinical experience—he spent five years as a physician to the gladiators of the Roman circus, where he was exposed to multiple cases of traumatic head injury.

Over the next thirteen hundred years, little progress was made in relation to an appreciation of cerebral anatomy or physiology. With the anatomical observations of Andreas Vesalius (1514-1564) and the philosophical speculations of René Descartes (1596-1650), however, the stage was set for a new understanding of cerebral functioning.

In the early nineteenth century, phrenology, which postulated that specific areas of the brain controlled particular intellectual and psychological processes, became influential. Although it was subsequently discredited, phrenology provided the foundation for the localizationist position in neuropsychology.

Paul Broca (1824-1880) can be credited with raising the study of cerebral localization of speech to a scientific level. Broca's first case study was "Tan," a patient with apparently intact receptive abilities whose expressive skills had been reduced to uttering the word "tan" and a few colorful oaths. According to Broca, "Tan" was shown in an autopsy to have a lesion of the left anterior lobe of his brain, which caused his speech problems. Subsequently, the syndrome he described became known as Broca's aphasia. Furthermore, the posterior third of the left third frontal convolution of the left hemisphere of the brain became known as Broca's area.

Carl Wernicke (1848-1905) was the next person to make major contributions to the understanding of cerebral organization and language functioning. Wernicke proposed a sequential processing model that held that several areas of the brain affected language development, production, and expression. Following his work, the left first temporal gyrus was named Wernicke's area, and the particular type of receptive aphasia that resulted from damage to this area became known as Wernicke's aphasia.

Over the ensuing years, arguments raged regarding whether the localizationist position was tenable. As a general rule, researchers supporting equipotentiality (sensory input may be localized, but perception involves the whole brain) held sway. By the 1950's, interactionist theory had gained the ascendancy. Interactionist theory holds that basic functions are localized; however, there is redundancy in regard to function. Therefore, damage to a specific area of the brain may or may not cause a deficit in higher-order behaviors, since the damaged functions may be assumed by redundant or parallel backup components.

Recent years have seen notable advances in the understanding and treatment of aphasias. Psychometric instruments founded on modern principles of test construction have become available. Experimental techniques that take into account known aspects of cerebral functioning have been developed. Furthermore, advances in brain imaging have done much to aid in understanding cortical function and the effects of injury as they relate to the development of aphasias.

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Bruce E. Bailey

See also:

Alzheimer's Disease; Brain Disorders; Dementia; Dyslexia; Learning Disabilities.

Attention-Deficit Disorder

Type of psychology: Psychopathology
Fields of study: Attitudes and behavior; childhood and adolescent disorders

Attention-deficit disorder is one of the most common disorders of childhood and adolescence, but it is also one of the most disturbing and debilitating disorders that a child or adolescent can experience. Research into this disorder has identified its primary causes; however, it remains a difficult disorder to treat effectively.

Principal terms

ETIOLOGY: the factors that are thought to cause or contribute to a particular disorder
IMPULSIVITY: excitability, poor self-control, and inability to delay gratification or to inhibit urges; examples include difficulty waiting, blurting out answers, and interrupting others
INATTENTION: difficulty in sustaining attention, distractibility; examples include poor concentration and distraction by unimportant stimuli, such as a passing vehicle
OVERACTIVITY: excessive levels of vocal or motor activity, such as restlessness, fidgeting, and unnecessary movements
PREVALENCE: the percentage of a population that has a particular disorder at a given time
TREATMENT: the attempt to ameliorate or treat the symptoms of a disorder; treatments can include medication, cognitive-behavioral therapy, and parent training, among others

Causes and Symptoms

Attention-deficit disorder (ADD), also known as attention-deficit/hyperactivity disorder (ADHD) or hyperactivity, is one of the most extensively studied behavior disorders of childhood. It is estimated that there are more than ten thousand individual studies of this disorder, as well as numerous books and other writings. There are a number of reasons why this disorder is of such interest to researchers and clinicians. The two primary reasons are, first, that ADD is a relatively common disorder of childhood, and second, there are numerous problems associated with ADD, including lower levels of intellectual and academic performance and higher levels of aggressive and defiant behavior.

In national and international studies of childhood emotional and behavioral disorders, ADD has been found to be relatively common among children. Although prevalence estimates range from 1 percent to 20 percent, most researchers agree that between 3 percent and 5 percent of children could be diagnosed as having ADD. In order to be diagnosed as having ADD, a child needs to show more than hyperactivity alone. The fourth edition of the *Diagnostic and Statistical Manual of*

Mental Disorders (DSM-IV), which was published by the American Psychiatric Association in 1994, described diagnostic criteria for ADD. A child had to show twelve out of eighteen listed behaviors falling roughly into three categories: inattention (such as having difficulty sustaining attention in play activities or tasks), impulsivity (such as having difficulty waiting one's turn in a game), and hyperactivity (such as difficulty remaining still or seated when asked). Although many of these behaviors are quite common for most children at some point in their lives, the important point to consider is that they must be maladaptive and inconsistent with developmental level. Additionally, it is expected that these behaviors have been present for at least six months.

Boys tend to outnumber girls in the diagnosis of ADD. It is estimated that, of children diagnosed as having ADD, boys outnumber girls six to one. This estimate may be somewhat high, however, since the ratio is reported to be three to one in samples of children who have not been referred for therapy. It may be that boys are disproportionately referred for therapy. ADD boys tend to be more aggressive and antisocial than ADD girls, and therefore boys may be more frequently referred for therapy than girls even when similar levels of ADD behavior occur.

Possible Symptoms of ADD with Hyperactivity (Impulsive) in Children

- fidgety
- leaves seat when should not
- runs or climbs inappropriately
- talks excessively
- difficulty playing quietly
- always on the go
- blurts out answers
- has trouble waiting turns
- interrupts

Possible Symptoms of ADD without Hyperactivity (Inattentive) in Children

- difficulty following through on instructions
- difficulty keeping attention on tasks or play
- loses things at school and home
- does not listen
- fails to give close attention to detail
- seems disorganized
- trouble with tasks needing long-term effort
- forgetful
- easily distracted

Possible Symptoms of ADD in Adults

- a tendency to be easily distracted
- hyperactivity, usually in the form of restlessness
- mood swings (which very often become the main symptom in adults)
- inability to complete things
- a hot temper, with low stress tolerance
- difficulties getting along with spouses, coworkers, and other significant people in their lives.

There are a number of additional problems associated with ADD, including the greater likelihood of ADD boys exhibiting aggressive and antisocial behavior. Although many ADD children do not show any associated problems, many ADD children show deficits in both intellectual and behavioral functioning. For example, a number of studies have found that ADD children score an average of seven to fifteen points below normal children on standardized intelligence tests. It may be, however, that this poorer performance reflects poor test-taking skills or inatten-

tion during the test rather than actual impairment in intellectual functioning. Additionally, ADD children tend to have difficulty with academic performance and scholastic achievement. It is assumed that this poor academic performance is a result of inattention and impulsiveness in the classrooom. When ADD children are given medication to control their inattention and impulsiveness, their academic productivity has been shown to improve.

ADD children have also been shown to have a high number of associated emotional and behavioral difficulties. As mentioned earlier, ADD boys tend to show higher levels of aggressive and antisocial behavior than ADD girls and normal children. Additionally, it is estimated that 11 percent of ADD children have at least three other psychiatric disorders, 32 percent have at least two other disorders, and 44 percent have at least one other disorder. Many of these problems are related to depression and anxiety, although many ADD children also have severe problems with temper tantrums, stubbornness, and defiant behavior. It is also estimated that up to 50 percent of ADD children have impaired social relations; that is, they do not get along with other children. In general, there are many problems associated with ADD, and this may be part of the reason that researchers have been so intrigued by this disorder.

Researchers must understand a disorder before they can attempt to treat it. There are a variety of theories on the etiology of ADD, but most researchers now believe that there are multiple factors that influence its development. It appears that many children may have a biological predisposition toward ADD; in other words, they may have a greater likelihood of developing ADD as a result of genetic factors. This predisposition is exacerbated by a variety of factors, such as complications during pregnancy, neurological disease, exposure to toxins, family adversity, and inconsistent parental discipline. Although a very popular belief is that food additives or sugar can cause ADD, there has been almost no scientific support for these claims. Since so many factors have been found to be associated with the development of ADD, it is not surprising that numerous treatments have been developed for the amelioration of ADD symptoms. Although numerous treatment methods have been developed and studied, ADD remains a difficult disorder to treat effectively.

Treatment and Therapy

Treatments of ADD can be broken down into roughly two categories: medication; and behavioral or cognitive-behavioral treatment with the individual ADD child, parents, or teachers. It should be noted that traditional psychotherapy and play therapy have not been found to be effective in the treatment of ADD. Stimulant medications have been used in the treatment of ADD since 1937. The most commonly prescribed stimulant medications are methylphenidate (Ritalin), pemoline (Cylert), and dextroamphetamine (Dexedrine). Behavioral improvements caused by stimulant medications include impulse control and improved attending behavior. Overall, approximately 75 percent of ADD children on stimulant medication show behavioral improvement, and 25 percent show either no improvement or decreased behavioral functioning. The findings related to academic performance are mixed. It appears that stimulant medications can help the

ADD child with school productivity and accuracy, but not with overall academic achievement. In addition, although ADD children tend to show improvement while they are on a stimulant medication, there are rarely any long-term benefits to the use of stimulant medications. In general, stimulant medication can be seen as only a short-term management tool.

Antidepressant medications (such as imipramine and desipramine) have also been used with ADD children. These medications are sometimes used when stimulant medication is not appropriate (for example, if the child has motor or vocal tics). Antidepressant medications, however, like stimulant medications, appear to provide only short-term improvement in ADD symptoms. Overall, the use or nonuse of medications in the treatment of ADD should be carefully evaluated by a qualified physician (such as a psychiatrist). If the child is started on medication for ADD, the safety and appropriateness of the medication must be monitored continually throughout its use.

Behavioral and cognitive-behavioral treatments have been used with ADD children themselves, with parents, and with teachers. Most of these techniques attempt to provide the child with a consistent environment in which on-task behavior is rewarded (for example, the teacher praises the child for raising his or her hand and not shouting out an answer), and in which off-task behavior is either ignored or punished (for example, the parent has the child sit alone in a chair near an empty wall, a "time-out chair," after the child impulsively throws a book across the room). In addition, cognitive-behavioral treatments try to teach ADD children to internalize their own self-control by learning to "stop and think" before they act.

One example of a cognitive-behavioral treatment, which was developed by Philip Kendall and Lauren Braswell, is intended to teach the child to learn five "steps" that can be applied to academic tasks as well as social interactions. The five problem-solving steps that children are to repeat to themselves each time they encounter a new situation are the following: Ask "What am I supposed to do?"; ask "What are my choices?"; concentrate and focus in; make a choice; and ask "How did I do?" (If I did well, I can congratulate myself; if I did poorly, I should try to go more slowly next time.) In each therapy session, the child is given twenty plastic chips at the beginning of the session. The child loses a chip each time he or she does not use one of the steps, goes too fast, or gives an incorrect answer. At the end of the session, the child can use the chips to purchase a small prize; chips can also be stored in a "bank" in order to purchase an even larger prize in the following sessions. This treatment approach combines the use of cognitive strategies (the child learns self-instructional steps) and behavioral techniques (the child loses a desired object, a chip, for impulsive behavior).

Overall, behavioral and cognitive-behavioral treatments have been found to be relatively effective in the settings in which they are used and at the time they are being instituted. Like the effects of medication, however, the effects of behavioral and cognitive-behavioral therapies tend not to be long-lasting. There is some evidence to suggest that the combination of medication and behavior therapy can increase the effectiveness of treatment. In the long run, however, no treatment of ADD has been found to be truly effective.

Perspective and Prospects

Children who might now be diagnosed as having ADD have been written about and discussed in scientific publications since the mid-1800's. Attention to ADD began in the United States after an encephalitis epidemic in 1917. Because the damage to the central nervous system caused by the disease led to poor attention, impulsivity, and overactivity in children who survived, researchers began to look for signs of brain injury in other children who had similar behavioral profiles. By the 1950's, researchers began to refer to this disorder as "minimal brain damage," which was then changed to "minimal brain dysfunction" (MBD). By the 1960's, however, the use of the term MBD was severely criticized because of its overinclusiveness and nonspecificity. Researchers began to use terms that more specifically characterized children's problems, such as "hyperkinesis" and "hyperactivity."

The *Diagnostic and Statistical Manual of Mental Disorders* (DSM), published by the American Psychiatric Association, is the primary diagnostic manual used in the United States. In 1968, DSM-II presented the diagnosis of "Hyperkinetic Reaction of Childhood" to characterize children who were overactive and restless. By 1980, when DSM-III was published, researchers had begun to focus on the deficits of attention in these children, so two diagnostic categories were established: "Attention Deficit Disorder with Hyperactivity (ADD with H)" and "Attention Deficit Disorder without Hyperactivity (ADD without H)." After the publication of DSM-III, many researchers argued that there were no empirical data to support the existence of the ADD without H diagnosis. In other words, it was difficult to find any children who were inattentive and impulsive but who were not hyperactive. For this reason, in 1987, when DSM-III-R was published, the only diagnostic category for these children was "Attention-Deficit/Hyperactivity Disorder."

The interest in and commitment to this disorder is likely to continue. Children and adults with ADD, as well as the people around them, have difficult lives to lead. The research community is committed to finding better explanations of the etiology and treatment of this common disorder.

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Vicky Phares

See also:

Abnormality; Abnormality: Behavioral Models; Abnormality: Biomedical Models; Child and Adolescent Psychiatry; Cognitive Behavior Therapy; Juvenile Delinquency; Learning Disabilities; Psychoactive Drug Therapy.

Autism

Type of psychology: Psychopathology
Fields of study: Childhood and adolescent disorders; interpersonal relations

Autism, a poorly understood, nonschizophrenic psychosocial problem, includes great social unresponsiveness, speech and language impairment, ritualistic play activity, and resistance to change. It causes the parents of autists great grief and disrupts the life of the entire family, although the autist is oblivious to the familial trauma.

Principal terms

AFFECTIVE: behavior resulting from emotions or feelings, rather than from thought
APHASIC: one who has lost the ability to articulate ideas because of brain damage
COGNITIVE: relating to the mental process or faculty by which humans acquire knowledge
ECHOLALIA: an involuntary and parrotlike repetition of words or phrases spoken by others
EPILEPTIC SEIZURE: an attack of epilepsy, characterized by convulsion, motor, sensory, and psychic malfunction
SCHIZOPHRENIA: any of a group of psychotic reactions characterized by withdrawal from reality, with accompanying affective, behavioral, and intellectual disturbances
SEROTONIN: a neurotransmitter produced from the amino acid tryptophan; implicated in a number of psychological disorders
TARDIVE DYSKINESIA: slow, involuntary motor movements, especially of the mouth and tongue, which can become permanent and untreatable

Causes and Symptoms

The modern term "autism" was originated by Leo Kanner in the 1940's. In "Autistic Disturbances of Affective Contact" (1943), he described a group of these children; he viewed them as much more similar to one another than to the schizophrenics, with whom they generally had been associated. Until that time, the classical definition for autism (still seen in some dictionaries) was "a form of childhood schizophrenia characterized by acting out and withdrawal from reality." Kanner believed that these children represented an entirely different clinical psychiatric disorder. He noted four main symptoms associated with the disease: social withdrawal or "extreme autistic aloneness"; either muteness or failure to use spoken language "to convey meaning to others"; an "obsessive desire for maintenance of sameness"; and preoccupation with highly repetitive play habits, producing "severe limitation of spontaneous activity." Kanner also noted that autism—unlike other types of childhood psychoses—began in or near infancy.

Over the years, several attempts have been made to establish precise diagnostic criteria for autism. The criteria given in the American Psychiatric Association's

Diagnostic and Statistical Manual of Mental Disorders (3d ed., 1980, DSM-III) for "Autism Disorder" were onset prior to thirty months of age; pervasive lack of responsiveness to other people; gross deficits in language development; if speech is present, peculiar patterns (such as delayed echolalia and pronoun reversals); bizarre reaction to environmental aspects (resistance to change); and the absence of any symptoms of schizophrenia. These criteria were largely a restatement of Kanner's viewpoint.

Criteria from the fourth edition of the manual, DSM-IV, published in 1994, were qualitative impairment in social interactions, qualitative abnormalities in communication, and restricted repetitive and stereotyped patterns of behavior, interests, and activities. Qualitative impairment in social interactions included marked impairment in the use of multiple nonverbal behaviors; a lack of spontaneous seeking to share enjoyment, interests, or achievements with others; and lack of social or emotional reciprocity. Qualitative abnormalities in communication included delay in or total lack of the development of spoken language not accompanied by an attempt to compensate through alternative modes of communication; stereotyped and repetitive use of language or idiosyncratic language; and lack of varied, spontaneous make-believe play or social imitative play. Restricted repetitive and stereotyped patterns of behavior, interests, and activities included apparently inflexible adherence to specific, nonfunctional routines or rituals; stereotyped and repetitive motor mannerisms such as hand or finger flapping or twisting, and complex whole-body movements; and persistent preoccupation with parts of objects. Delays or abnormal functioning had to be present in at least one of the following areas, with onset prior to age three: social interaction, language as used in social communication, or symbolic or imaginative play.

Although the basic cause of autism is still in dispute, it is believed to be attributable to a fundamental cognitive deficit. The prevalence of autism is generally estimated at between 0.1 and 0.4 percent of the population of the world. Study of the sex distribution shows that it is 2.5 to 4 times as common in males as in females.

Largely because of Kanner's original sample (now known to

Possible Signs of Autism in an Infant or Toddler

- does not cuddle or respond to affection and touching
- does not make eye contact
- appears to be unable to communicate
- displays persistent failure to develop two-way social relationships in any situation
- does not show a preference for parents over other adults
- does not develop friendships with other children
- has poor language skills; or nonexistent ones
- shows unusual, extreme responses to objects—either avoidance or preoccupation
- finds moving objects, such as a fan, hold great fascination
- may form an unusual attachment to odd objects such as a paper or rubberband
- displays repetitive activities of a restrictive range
- spins and repeats body movements, such as arm flapping
- may repeat television commercials
- may indulge in complex bedtime rituals

have been atypical), many people believe that autistic children come from professional families and have the capacity for quite normal intellectual function. Subsequent studies have indicated that this is not so. Rather, autistic children come from families within a wide socioeconomic range, and more than 70 percent of them are mentally retarded, exhibiting quite stable intelligence quotient (IQ) scores over a wide age range.

The behavior that characterizes the autistic personality strongly suggests that the disorder is related to other types of neurologic dysfunction. Identified neurological correlations include soft neurologic signs (such as poor coordination), seizure disorders (such as phenylketonuria), abnormal electroencephalograms, and unusual sleep patterns. This emphasis on neurologic—or organic—explanations for autism is relatively new; autism was previously thought to be an entirely emotional disorder.

The difficulties that autistic children show in social relationships are exhibited in many ways. Most apparent is a child's failure to form social bonds. For example, such youngsters rarely initiate any interactions with other children. Moreover, unlike nonautistic children, they do not seek parental company or run to parents for solace when distressed. Many sources even point to frequent parental statements that an autistic child is not as "cuddly" as normal babies and that autists do not respond to their mothers or to affectionate actions. Autistic children avoid direct eye contact and tend to look through or past other people. In addition, autistic children rarely indulge in any cooperative play activities or strike up close friendships with peers.

Sometimes speech does not develop at all. When speech development does occur, it is very slow and may even disappear again. Another prominent speech pathology in autism is either immediate or delayed repetition of something heard but simply parroted back (such as a television commercial), phenomena called immediate and delayed echolalia, respectively. Yet another problem seen is lack of true language comprehension, shown by the fact that an autistic child's ability to follow instructions is often dependent on situational cues. For example, such a child may understand the request to come and eat dinner only when a parent is eating or sitting at the dinner table.

Behavior denoting resistance to change is often best exemplified by rigid and repetitive play patterns, the interruption of which results in tantrums and even self-injury. Some autistic children also develop very ritualistic preoccupations with an object or a schedule. For example, they may become extremely distressed with events as minor as the rearrangement of furniture in a particular room at home.

Treatment and Therapy

Autistic children can be very frustrating to both parents and siblings, disrupting their lives greatly. Often, autists also cause grief and guilt feelings in parents and may diminish their social standing. According to Mary Van Bourgondien, Gary Mesibov, and Geraldine Dawson, in "Pervasive Developmental Disorders: Autism" (1987), this can be ameliorated by psychodynamic, biological, or behavioral techniques. These authors point out that all psychodynamic therapy views

autism as an emotional problem, recommending extensive psychotherapy for the autist and the rest of the family. In contrast, biological methodology applies psychoactive drugs and vitamins. Finally, behavioral therapy uses the axioms of experimental psychology, along with special education techniques that teach and reinforce appropriate behavior.

Some interesting aspects of behavioral techniques are described in *Effective Teaching Methods for Autistic Children* (1974), by Rosalind Oppenheim. For example, it is pointed out that many autists have the speech problems associated with aphasic children and the odd body movements of children with perceptual problems. A suggested technique used successfully by Oppenheim is teaching an autistic child to write and then asking "why" questions, to be answered in writing. This technique is reported to be quite successful at enhancing the "inner intellectual development" of some autists.

One autistic child cited by these authors was a teenager designated as Bill. Initially, Bill was uncommunicative, failed to look at his teacher or school work, and persisted in being uncooperative. Within about five months he was reported as having made substantial improvement in a number of academic areas and in speech. The regimen utilized to cause the improvement was a combination of the use of multiple-choice questions and longer written answers to questions.

A wide discussion of the use of biological intervention can be found in *The Biology of the Autistic Syndrome* (1985), by Mary Coleman and Christopher Gillberg, and in *Autism: Nature, Diagnosis, and Treatment* (1989), edited by Geraldine Dawson. As these authors and others point out, the therapeutic drugs of most frequent choice are anticonvulsants, amphetamines, phenothiazines, Haldol, and megavitamins. Anticonvulsants are utilized to control epileptic seizures because of frequent occurrence of this problem in up to 40 percent of autists. The medications of widest use are those that do not cause hyperactivity, another problem often observed in autistic children. Also used to combat hyperactivity are amphetamines; concurrent with their calming effect, these drugs may make autists more teachable.

Phenothiazines and Haldol are used mostly to reduce the occurrence of aggression and self-injury seen in some autists. It is necessary to use carefully monitored doses of these drugs to prevent the occurrence of epileptic seizures and tardive dyskinesia. Along these lines, the use of large amounts of standard vitamins (megavitamins) has also been attempted, with varying effects.

A major aspect of many drug treatments concerns efforts to alter the serotonin levels in autists, as this neurotransmitter (associated with other psychiatric disorders and elevated in some autists) is thought by many to be related to autism. Such conceptualization has also led to utilization of a drug called fenfluramine, a diet drug that lowers serotonin levels in the general population. Neither consistent results nor clear interrelationships between serotonin level alteration and easing of autistic symptoms have been obtained, however; in some cases, biological intervention has had good results, but successes have been low overall.

Similarly, the psychodynamic approach has had varied success. Regrettably, no widepread and predictable results have been achieved in treating autism with any

of the methods tested by the 1980's; the treatment of autistic children remains highly individualized. It has been proposed that this is partly the result of an insufficiency of facilities that provide for special learning and other needs of autists.

Perspective and Prospects

It is widely reported that autistic children, as defined by Kanner in the 1940's, were at first perceived as victims of an affective disorder brought on by their emotionally cold, very intellectual, and compulsive parents. The personality traits of these parents, it was theorized, encouraged such children to withdraw from social contact with them, and then with all other people. This conceptualization fit not only with the data available but also with the highly behavioristic bent of psychiatry and psychology at the time.

In the years that have followed, additional data—as well as conceptual changes in medicine and psychology—have led to the belief that autism, which may actually be a constellation of disorders that exhibit similar symptoms, has a biological basis that may reside in subtle brain and hormone abnormalities. These concepts have been investigated and are leading to definitive changes in the therapy used to treat individual autistic children. Although no general treatment or unifying concept of autism has developed, promising leads include modalities that utilize drugs which alter levels of serotonin and other neurotransmitters, as well as examination of patients by nuclear magnetic resonance and other new techniques useful for studying the brain and the nervous system.

The evolution of educational methodology aimed at helping autists has also been useful, aided by legislation aimed at bringing severely developmentally disabled children into the mainstream. Some cities and states have developed widespread programs for educating autistic people of all ages. Instrumental here has been the development of the National Society for Autistic Children, which has focused some of its efforts on dealing with autistic adolescents and adults.

The fruits of all these efforts are the fact that combined therapy, biological intervention, and educational techniques have helped autistic persons and their families to cope; have decreased behavior problems in autists; have enhanced the scholastic function of a number of these people; and have produced hope for autistic adults, once nearly all institutionalized.

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Sanford S. Singer

See also:

Abnormality: Behavioral Models; Abnormality: Biomedical Models; Abnormality: Family Models; Attention-Deficit Disorder; Brain Disorders; Learning Disabilities; Schizophrenia; Schizophrenia: High-Risk Children.

Aversion, Implosion, and Systematic Desensitization Therapies

Type of psychology: Psychotherapy
Fields of study: Behavioral therapies

Aversion, implosion, and systematic desensitization therapies are effective therapy techniques based on the principles of Pavlovian conditioning. The latter two are most effective in treating fear and anxiety; aversion therapy is most often used in treating habit disorders such as cigarette smoking or drug abuse.

Principal terms

AVERSION THERAPY: a therapy that involves pairing something negative (such as electric shock) with an undesired behavior (such as drinking alcohol or smoking cigarettes)

COVERT SENSITIZATION: aversion therapy using imagination or "imagery"; for example, having an alcoholic imagine vomiting or becoming sick after sipping a favorite drink

DESENSITIZATION HIERARCHY: a list of feared situations, ordered from the least fear-producing to the most fear-producing, for use in systematic desensitization

EXPOSURE THERAPIES: therapies in which real or imagined exposure to a fear-inducing situation reduces the fear response—for example, systematic desensitization, flooding, and implosion

FLOODING: a therapy in which a phobic person imagines his or her most feared situation until fear decreases; differs from implosion in that it includes only the elements of the situation of which the patient is afraid

IMPLOSION THERAPY: a therapy in which the patient imagines his or her feared situation (plus elements from psychodynamic theory that the therapist thinks are related to the fear) until fear decreases

PAVLOVIAN CONDITIONING: learning in which two stimuli are presented one after the other, and the response to the first changes because of the response to the second stimulus

SYSTEMATIC DESENSITIZATION: an exposure therapy in which the phobic person is gradually presented with a feared object or situation

Overview

Systematic desensitization, implosion, and aversion therapy are all behavior therapy techniques that are based on Pavlovian conditioning. In Pavlovian conditioning, when one stimulus is paired with another, the response to the second stimulus

can affect the response to the first. For example, if the presence of a dog is followed by a painful bite, the pain and fear that result from the bite can produce a conditioned response of fear toward dogs. An important process in Pavlovian conditioning is extinction: When the first stimulus is presented a number of times without the second stimulus, the response that became conditioned because of the pairing becomes extinguished. If, after having been bitten by a dog, a person spends time around dogs without being bitten, his or her fear of dogs will gradually disappear. Both systematic desensitization and implosion therapy use extinction to eliminate fear of an object or situation. Aversion therapy uses conditioning to attach a negative response to something pleasant but undesirable (such as cigarettes or alcohol) in order to eliminate a bad habit.

Systematic desensitization, developed and described by Joseph Wolpe in the 1950's, is one of the most well-accepted and effective psychological treatments. It is most successful when used to eliminate phobias, which are fears of specific objects or situations. The goal of systematic desensitization is to put the patient into a relaxed state and gradually present him or her with the feared situation, so that very little anxiety is actually experienced during treatment. The therapist usually presents the feared situation to the patient by having the patient vividly imagine being in the situation. Systematic desensitization starts out with the patient briefly imagining a situation that provokes very little anxiety. This is repeated until no anxiety is produced by the image; then the patient moves on to a slightly more anxiety-provoking image. This continues until the person can imagine his or her most-feared situation with little or no anxiety.

Implosion is similar to systematic desensitization in that a person repeatedly imagines a feared situation until the fear dissipates; however, if systematic desensitization is like lowering inch by inch into a cold pool, implosion is like diving headfirst into the deep end. Unlike systematic desensitization, which proceeds gradually and evokes little discomfort, implosion plunges the patient right into imagining his or her most intensely feared situation. Whereas systematic desensitization uses short image periods, implosion requires a person to keep imagining the feared situation for as long as it takes until the fear begins to decrease. Implosion works best with long sessions of imagining, sometimes two hours or more. As might be expected, implosion works faster than systematic desensitization but is more uncomfortable and is more likely to cause people not to want to try the treatment.

As originally described by Thomas Stampfl, implosion was a mixture of extinction and psychodynamic theory. In addition to imagining the situation that the patient presented as anxiety-provoking, the patient would imagine things the therapist thought were psychodynamic elements related to the anxiety, such as childhood fears or conflict. For example, the therapist might instruct the patient to imagine being rejected by his or her parents. Flooding is very similar to implosion, except that the image is restricted to the specific situations the client describes as fearful and does not include elements the therapist introduces from psychodynamic theory. Flooding is now a more commonly used therapy than implosion.

Both systematic desensitization and flooding can be done through exposure to

Russian physiologist Ivan Pavlov conducted experiments with dogs that lead him to discover several properties regarding the production of behavior. Systematic desensitization, implosion, and aversion therapy are techniques based on Pavlovian conditioning. (©The Nobel Foundation)

the actual situation, as well as through imagining it. For example, a person with a phobia of dogs could approach a real dog rather than merely imagine it. Research has shown that confronting the actual fear situation is more effective than imagining it; however, sometimes there are practical constraints. It would be too expensive, for example, for a person who is afraid of flying to buy an airplane ticket every week to become desensitized to the situation; imagining an airplane trip costs

nothing. In practice, treatment usually involves a combination of imagery and actual exposure. The flight phobic might imagine being on an airplane during therapy sessions and between sessions have a homework assignment to drive to an airport and watch planes take off.

Whereas systematic desensitization and flooding try to extinguish a fear response, the goal of aversion therapy is to attach a new, aversive response to a currently positive stimulus. This is usually done to eliminate a bad habit like drinking alcohol, smoking, or overeating. During treatment, the sight, smell, or taste of alcohol, cigarettes, or a favorite food might be followed by electric shock or a nausea-inducing drug. After experiencing a number of these pairings, the person begins to develop a negative response to the previously valued stimulus. Like flooding and systematic desensitization, aversion therapy can be performed either in actuality or through the use of imagery. The use of imagery in this case is called covert sensitization; an example would be an alcoholic who imagines becoming violently ill after sipping his favorite drink.

There are a number of concerns with using aversion therapy. First, there are always ethical concerns about any treatment that involves punishment or severe discomfort. Aversive procedures are preferred only when other effective treatments are not available or if other treatments have failed. A second concern with aversion therapy is its effectiveness. The alcoholic may avoid drinking when he is hooked up to the electric shock or has taken the nausea-producing drug, but aversion therapy may not be effective in stopping him from drinking after treatment, when no punishment will be suffered.

Applications

Systematic desensitization is most useful when applied to reduce fear. The application of systematic desensitization is straightforward. The first step in systematic desensitization is to establish a list of ten to fifteen feared situations (called a desensitization hierarchy), ordered from least to most anxiety-provoking. For example, the hierarchy for a person afraid to fly might start out with making an airplane reservation a month before a scheduled trip and end with actually being in a plane while it is taking off. Creating the desensitization hierarchy is one of the most important parts of treatment and involves finding out what is most important to the phobia: It might be fear of heights, fear of crashing, or fear of being in a closed space with no escape. Two people with the same phobia may have completely different desensitization hierarchies.

When the hierarchy is complete, desensitization can begin. The therapist first gets the patient or client to relax deeply, usually by teaching a specific muscle relaxation technique the patient can practice at home. While the patient is relaxed, the therapist instructs him or her to imagine vividly the item on the hierarchy that provokes the least anxiety. This image is held for only a few seconds, so very little anxiety is felt; then the patient returns to relaxing. This is repeated until no anxiety is felt while imagining the scene; then the person imagines the next situation on the hierarchy. Over the course of a number of sessions, the patient progresses up the hierarchy until he or she can imagine the highest, most fear-provoking scene

without feeling any fear. As noted earlier, treatment usually includes between-session homework assignments that involve confronting the fear situation.

Flooding is used in the treatment of similar problems. In this case, the client is immediately immersed in the most fearful situation he can imagine. The person with a fear of flying might be asked immediately to imagine being on a flight over the ocean while the plane is being jostled by severe turbulence. The phobic would continue to imagine this (sometimes for hours) until the anxiety reduces. One interesting and successful application of flooding has been in treating people with compulsive washing rituals. People with obsessive-compulsive disorder will often wash their hands until they are raw or bleeding, or will wash their clothes or clean house many hours a day, fearing unseen contamination and germs. Because of the time and energy this takes, the disorder can severely interfere with a person's life. Treatment involves having the person get his hands dirty by touching garbage or some other feared material (or put on dirty clothes), then not allowing the person to wash. This treatment is technically known as "exposure with response prevention." Because invisible germs are often what is most feared, the treatment also involves having the person imagine germs covering and infecting his skin. In severe cases, the person may need to be prevented from washing for days or even weeks before the anxiety goes away. This is obviously a very uncomfortable treatment for both patient and therapist, but it is one of the few long-lasting treatments for this disorder.

Aversion therapy is used much less frequently than systematic desensitization or flooding, and it is not used when other effective therapies are available. One relatively common application of aversion therapy is rapid smoking. In this technique a cigarette smoker will smoke one cigarette after another in a small, enclosed room until it causes a feeling of nausea. After a few sessions of this, the person begins to anticipate the nausea at the first cigarette, reducing the desire to smoke. Rapid smoking can be effective when used as one component of a treatment program and when there are no medical reasons for the person to avoid this technique.

Although aversion therapy is not used as often as systematic desensitization or flooding, an especially creative application of it, reported by Peter Lang and Barbara Melamed in 1969, illustrates its importance in certain situations. The case involved a nine-month-old infant who was failing to gain weight because he vomited his food ten minutes after every meal. No physical reason for this was found, despite three hospitalizations, many medical tests, and surgery. Several treatments were tried without success prior to beginning aversion therapy. When aversion therapy was begun, the child was in critical condition and was being fed through a nasogastric tube. Therapy involved giving an electric shock to the leg whenever the child was vomiting. Within three days, shocks no longer had to be given. His weight had increased 26 percent by the time he was discharged from the hospital thirteen days after treatment began. One year later, he was still progressing normally. This dramatic case shows that there is a place for aversion therapy in psychology.

Perspective and Prospects

Systematic desensitization, implosion, and aversion therapy were among the first psychotherapies that were developed from principles discovered in the experimental psychology laboratory. During the 1960's, they also were the first therapies to have their effectiveness confirmed in controlled experimental studies. In the 1950's, a patient seeking treatment for a phobia might have received a course of psychoanalysis, potentially stretching hundreds of sessions over several years with questionable effectiveness. By the 1970's, a patient going to a psychologist for the same problem would probably receive systematic desensitization or flooding, treatments with proven effectiveness and lasting only a handful of sessions.

On a broader level, these therapies and the research done on them ushered in a new era of scientific standards for clinical psychology. They led the behavior therapy movement, which continued to develop therapy techniques from research done in experimental psychology and to test the effectiveness of these therapies. This led to an expectation that all therapies should have proven effectiveness. These therapies, then, represent a large step forward for the importance of scientific principles in all areas of clinical psychology and psychiatry.

Although systematic desensitization and flooding are standard and effective treatments, they are not 100 percent effective. Research continues to improve their effectiveness and to reach the percentage of people who do not seem to improve with these therapies. A particularly important area of research is to figure out how best to combine these therapies with drug therapies for fear and anxiety. Regardless of where this research leads, however, systematic desensitization and flooding will remain important therapy techniques in clinical psychology.

Aversion therapy also is important as one of the original scientifically derived and tested treatments, but it has more of a checkered history. One of its initial uses in the 1960's was to "treat" homosexual males by pairing pictures of attractive men with electric shock. It should be noted that this was in an era when society had a much different attitude toward homosexuality, and gay males voluntarily approached psychologists for this treatment. Nevertheless, aversion therapy contributed to an early popular view of behavior therapy as dehumanizing behavior control that took away free will and reduced individual rights. When used thoughtfully and ethically by competent psychologists, aversion therapy has an important role in psychological treatment; however, psychologists will surely continue to debate the ethics and effectiveness of aversion therapy.

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Scott R. Vrana

See also:

Abnormality: Behavioral Models; Obsessive-Compulsive Disorder; Operant Conditioning Therapies; Phobias.

Bed-Wetting

Type of psychology: Developmental psychology
Fields of study: Childhood and adolescent disorders; organic disorders

Bed-wetting, technically known as enuresis, is a disorder characterized by the frequent failure to maintain urinary control by a certain age. It most frequently occurs in young children, although it may continue through adulthood.

Principal terms

ANTIDIURETIC HORMONE (ADH): a naturally occurring hormone within the body, produced by the pituitary gland, that controls urine production

DIURNAL ENURESIS: the presence of enuretic episodes when the individual is awake

NOCTURNAL ENURESIS: the failure to maintain urinary control during sleep

ORGANIC ENURESIS: a type of enuresis caused by identifiable physical problems, such as diabetes

OVERLEARNING: a behavioral principle that involves the enuretic practicing the ability to maintain urinary control under more difficult circumstances than are typically present

PRIMARY ENURESIS: the presence of enuresis in an individual who has never maintained adequate urinary control

SECONDARY ENURESIS: the recurrence of enuresis in an individual who previously has maintained urinary control

Causes and Symptoms

Enuresis is a disorder characterized by an individual's repeated inability to maintain urinary control after having reached an adequate age. Although enuresis may continue into adulthood, it most frequently occurs in young children. For example, at age five, approximately 15 percent of all children are enuretic at night on a once-a-week basis. By age eighteen, however, only about 1 percent of adolescents are enuretic. Among children under the age of eleven, boys are more likely to be enuretic than girls. After age eleven, however, boys and girls have equal rates of enuresis, according to Arthur C. Houts and Hillel Abramson. It should be noted that bed-wetting by children under five years of age and occasional bed-wetting by older children are common and usually not cause for concern.

Because of the many different types of enuresis, several distinctions should be made in discussing the disorder. The first distinction involves the cause. If enuresis is the result of obvious physical causes, such as a urinary tract infection or diabetes, it is referred to as organic enuresis. Although estimates vary, fewer than 5 percent of enuretic cases are thought to be the result of physical causes. The majority of the cases of enuresis are referred to as functional enuresis because no physical cause can be identified. Even though most cases of enuresis are functional types, a medical examination always should be conducted in order to make certain that the enuresis is not the result of a physical problem.

Another important distinction to make in discussing enuresis involves the time at which it occurs. Nocturnal enuresis, bed-wetting, refers to the loss of urinary control when an individual is sleeping. Diurnal enuresis refers to the loss of urinary control during an individual's waking hours. Nocturnal enuresis occurs much more frequently than diurnal enuresis. Diurnal enuresis is more often the result of physiological causes, such as urinary tract infections.

A final useful distinction is that between primary and secondary enuresis. Primary enuretics are individuals who have never demonstrated proper bladder control. Secondary enuretics are individuals who, after a substantial period of urinary control (six months to a year), become enuretic again. Approximately 80 percent of all nocturnal enuretics have never gained proper urinary control. Although professional differences of opinion exist, most researchers believe that the causes of primary and secondary enuresis are usually the same and that children with both types respond equally well to treatment. In order to avoid possible confusion, the remainder of this section will focus on the most common type of enuresis in children: functional primary nocturnal enuresis.

Over the years, numerous explanations have been given for the occurrence of nocturnal enuresis. These various explanations can be grouped into one of three areas: emotional, biological, or learning. An emotional explanation for the occurrence of enuresis involves the idea that the enuretic is suffering from an emotional disorder that causes him or her to lose urinary control. Examples of these proposed emotional disturbances include anxiety disorders, poor impulse control, and passive-aggressive tendencies. Recent research indicates, however, that few enuretic children have emotional problems that cause their enuresis. In fact, among enuretic individuals who do have emotional disturbance, it may be that their enuresis actually causes their emotional problems. In this regard, it is widely accepted that the occurrence of enuresis lowers children's self-esteem as well as increases family conflict.

Biological deficiencies are a second suggested cause of enuresis. Approximately 50 percent of enuretic children have a parent or close family member who has had the disorder. The tendency for enuresis to occur within certain families increases the likelihood that enuresis has a biological cause. There are various biological maladies that have been proposed to cause enuresis, including sleep disorders, small bladder capacity, and a deficiency of antidiuretic hormone.

Danish researcher J. P. Norgaard and his associates investigated the potential physical causes of enuresis. At one time, it was believed by many professionals that enuretics engaged in deeper sleep than nonenuretics. For this reason, they were unable to awaken in response to the sensation of a full bladder. Norgaard's precise measurement of the time that enuretic and nonenuretic individuals spend in different levels of sleep, ranging from light to deep sleep, failed to demonstrate consistent differences between the sleep patterns of these two groups.

The second suggested biological cause, small bladder capacity, has received limited support. The best evidence suggests that while enuretics tend to have small bladder capacities, this factor alone is insufficient to account for their enuresis.

The third suggested biological cause appears to have the most scientific support. This explanation involves the failure of enuretic children to release a sufficient

amount of antidiuretic hormone during their sleeping cycle. Antidiuretic hormone (ADH) is secreted by the pituitary gland and is responsible for the control of urine production. Because enuretics do not produce adequate amounts of ADH during sleep, they produce more urine, leading to a greater risk of bed-wetting.

The improper learning of bladder control is the final category of proposed causes of enuresis. This proposition rests on the notion that bladder control is a learned response and that enuretic children have not properly mastered this response. Some support for this proposition comes from the fact that mentally retarded children take longer to control their elimination functions, such as urination and defecation, than intellectually normal children. Enuresis researcher Arthur Houts has proposed that nonenuretic children may be better able to inhibit the contractions of the muscles responsible for urination; that is, while enuretic children may not have impaired muscle reflexes, they may have greater difficulty voluntarily inhibiting these muscles as compared with nonenuretic children.

Treatment and Therapy

Consistent with the large number of suggested causes of enuresis, or bed-wetting, numerous treatments have been attempted. Early "treatments" for enuresis, dating back some three thousand years, included such things as giving the child juniper berries, cypress, and beer, or having the child consume ground hedgehog. Currently, drug and behavioral therapies are the two treatments that have been utilized and studied to the greatest extent.

Among the drug therapies, imipramine was the first drug widely used in the treatment of enuresis. Imipramine has been widely prescribed in the treatment of depression for more than thirty years. In addition to its antidepressant qualities, it was observed early in its usage to stop previously enuretic patients from bed-wetting. Imipramine appears to stop bed-wetting by causing the contraction of the muscles responsible for the release of urine. Based on a review of the scientific literature, Houts and Abramson have concluded that imipramine is effective in treating about half of the children with whom it is used. Unfortunately, once the medication is withdrawn, almost all the successfully treated children return to wetting their beds.

Another medication that has shown promise in the treatment of enuresis is desmopressin (DDAVP). DDAVP is a drug administered internasally that is hypothesized to prevent enuresis by causing the kidneys to concentrate urine, thus preventing its passage into the bladder during sleep. DDAVP is completely effective in about 40 percent of the children for whom it is prescribed; however, the removal of this medication also results in a very high recurrence of bed-wetting.

Another category of enuresis treatment is behavioral therapy. Variations of behavioral therapy have been used with enuretics since the early 1900's. The "urine alarm" is at the center of the behavioral treatment approach; it is a device that typically is attached to the underwear of enuretics prior to their going to bed. When urine comes in contact with the sensors of the device, a loud noise is emitted by the alarm attached to the undershirts or pajama tops of the children. The alarm's sound is utilized in order to awaken the children and the parents at the first emission

of urine. It is necessary for parents to be awakened by the alarm because initially the children may have difficulty rousing themselves when the alarm sounds. In order for the children to be sufficiently awakened, it is often necessary to have them wash their faces as a way of increasing alertness. Once the children are awake, they are instructed to void the remainder of their urine. After voiding, the children return to their bedrooms, where parents check the dampness of the bedding and, if it is sufficiently wet, change the bedding. At this point, the children put on dry underwear, reattach the sensors, and return to bed.

During the treatment process, the child and the parents record the child's progress through the use of a chart on which stars are placed when the child has a dry bed. The accumulation of a certain number of stars usually results in the child's earning a reward of his or her choice. The treatment goal is for the enuretic not to wet the bed for fourteen consecutive nights. It typically takes ten to twelve weeks before this goal is met. It is best to instruct all members of the family regarding the purpose and the exact workings of the treatment in order to avoid misunderstandings and potential frustrations during the process. The lack of parental compliance with the treatment procedures is the most frequent reason for therapy failure.

Additional components often are added to the basic behavioral treatment in order to improve therapy effectiveness. Overlearning is one of these additional components; it begins once the previously enuretic child has been dry for fourteen consecutive nights. Based on the child's age, he or she is instructed to drink a certain amount of fluid prior to going to bed. The amount of fluid is gradually increased as the child demonstrates the ability to remain dry during the night. Once the child is able to remain dry after the intake of a maximum amount of fluid (2 ounces plus 1 ounce for every year of the child's age), the procedure is stopped. Overlearning typically reduces the recurrence of bed-wetting by 50 percent as compared with the use of the standard treatment alone.

Urine retention exercises are often another procedure added to the standard behavioral treatment. These exercises involve the child drinking a certain amount of water (for example, 8 ounces) during the daytime and then telling the parents when he or she first feels the need to urinate. At this point, the child is instructed to hold the urine for a specific period of time. Upon successful completion of urine retention, the child is allowed to urinate. Over a period of days, the amount of time the child is asked to wait before urination is increased from three minutes to a maximum of forty-five minutes. The effectiveness of this procedure is based on its ability to increase the child's bladder capacity and to strengthen the muscles responsible for urine release.

Compared with drug therapy, behavior therapy is viewed by the majority of professionals as the most effective treatment for enuresis. In a review study conducted by Houts and Abramson, approximately three out of every four children treated with a behavioral treatment stopped bed-wetting after ten to twelve weeks. In contrast with the high relapse rates of drug treatments, the percentage of children who return to bed-wetting after a behavioral treatment is relatively small. As previously mentioned, this 40 percent relapse can be substantially reduced by the addition of auxiliary treatment components.

Perspective and Prospects

Enuresis is a disorder that has probably existed since the beginning of humankind. In spite of the fact that since the 1960's considerable scientific research has been conducted examining enuresis, many misconceptions continue to exist. For example, many believe that children's bed-wetting is a result of their "laziness" and not wanting to take the time to use the bathroom. This is not the case; most enuretic children desperately want to stop their bed-wetting.

Another misconception is that children will "outgrow" their bed-wetting. In fact, the yearly spontaneous remission rate for enuretic children, a measure of how many children stop wetting their beds without treatment during a year's time, is only about 15 percent. According to Houts and Abramson, on average, it takes more than three years for enuretic children to stop wetting the bed on their own. During this time, the enuretic child may develop poor self-esteem and feelings of failure and isolation.

Misconceptions also continue regarding the effectiveness of different treatments for enuresis. For example, many parents believe if they sufficiently shame or punish their child for bed-wetting that it will cease. This is not an effective approach, and it exerts a negative influence on a child's self-concept. A more humane but also ineffective treatment technique is the restriction of fluids given to the child prior to bedtime. Restricting fluids prior to bedtime is ineffective because the bladder will continue to empty even when fluids are withheld for long periods of time.

One of the reasons for these continued fallacies is the secrecy that often accompanies the disorder. The parents of enuretic children are often unwilling, because of embarrassment, to ask others, including professionals, for assistance in dealing with an enuretic child. When the parents of an enuretic child do seek guidance, they are often given advice that is ineffective in treating the problem. For this reason, better efforts are needed to educate parents and professionals who work with enuretics. In this regard, the basic message that should be delivered to parents is that enuresis is a treatable problem and that they should not be reluctant to take their child to a qualified professional for evaluation and treatment.

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R. Christopher Qualls

See also:

Behavioral Family Therapy; Child and Adolescent Psychiatry; Operant Conditioning Therapies.

Behavioral Assessment and Personality Rating Scales

Type of psychology: Personality
Fields of study: Personality assessment

Behavioral assessment and personality rating scales are two methods of examining personality. Both use reports by the person or others of observable behavior rather than making inferences from more subjective sources to determine personality. Both approaches are much more direct than other personality assessment methods.

Principal terms

DISCRIMINATIVE STIMULUS: an event that serves as a cue or a prompt for a response
LEARNING HISTORY: a person's accumulated life experiences, which result in a unique pattern of responding to new situations
RELIABILITY: the extent to which test results are repeatable across different testing sessions
TARGET BEHAVIOR: the specific behavior that is the object of the assessment or intervention
VALIDITY: the extent to which a test actually measures what it is supposed to measure

Overview

Among the various ways of assessing human behavior are behavioral assessment and personality rating scales. These approaches to assessment arose from behavioral research, which offered explanations of human behavior that differed from traditional theories. For example, early behaviorists believed that a person's behavior was the appropriate focus for understanding the person, while other psychologists believed that behavior is only a symbolic representation of an unconscious conflict. Rating scales were developed by psychologists interested in behavioral assessment and in determining the intensity of a behavior experienced by a person. Behavioral assessment and rating scales differ from traditional assessment primarily in the philosophical underpinnings of each.

Traditional assessment approaches describe a person as having a particular trait or characteristic. For example, a person might be described as having an authority conflict or an anxious personality. In contrast, behavioral assessment describes the person's behavior in specific situations. For example, the behavioral assessment might say, "When the person is given an order by a superior, the person argues and makes sarcastic remarks." The behavioral assessment would go on to describe the consequences of arguing and talking back, which could be anything from the superior withdrawing the order to the superior punishing the person who argues.

Contemporary behavioral assessment is concerned with both internal and external events. Marvin Goldfried describes a model of behavioral assessment that includes a systematic analysis of internal and external events. Four classes of variables are assessed in this model: stimulus antecedents, organismic variables, response variables, and consequent variables. Stimulus antecedents refer to the environmental events that precede the occurrence of the target behavior. They are sometimes called discriminative stimuli, and they may be either external or internal. An example of an external event that serves as a stimulus antecedent is drinking a cup of coffee, which serves as a discriminative stimulus for lighting a cigarette. An internal event that might serve as a prompt for an emotional response is thinking about taking a test, which results in a feeling of anxiety. Both internal and external stimulus antecedents can produce behaviors that are experienced as either external (observable) or internal (unobservable).

This model of behavioral assessment includes a thorough description of organismic variables. These variables include anything that is personally relevant and could influence the response to the stimulus antecedents. Both acute and chronic medical conditions which may affect the perception of and/or response to the discriminative stimuli are noted. The influence of the person's genetic makeup is assessed when it seems relevant to the target behavior. Finally, the person's learning history is considered important in understanding the response to the antecedent stimuli. Organismic variables serve as mediators or filters between the stimulus antecedents and the responses.

Response variables are the person's behaviors in response to the stimulus antecedents and filtered through the organismic variables. The response variables are considered to be part of the triple-response system. The triple-response system requires the assessment of behavior in each of three domains: motor, physiological, and cognitive/emotional. Motor behavior refers to the observable actions of the person. Examples of motor behavior include lighting a cigarette, leaving a room, and throwing a temper tantrum. Physiological responses are unobservable behaviors that can be made observable by using specialized instruments. Heart rate is an unobservable physiological response until the person is placed on an instrument that detects and displays it. Cognitive and emotional responses are also unobservable events. The behavioral assessment of these responses requires the person to report his or her own thoughts and feelings in the presence of the stimulus antecedents.

The triple-response system is important from the perspectives of both assessment and treatment. While behaviorists have historically focused on motor behavior, it is well known that people experience physiological changes and cognitive/emotional changes concurrently with the motor behavior in the presence of the stimulus antecedents. As behavioral assessment has become more sophisticated, it has become apparent that the relative importance of the components of the triple-response system varies in different people. Thus, treatment may focus on cognition in one person because it is the most important behavior, and on physiological responses in another.

The final component of this model of behavioral assessment requires a consid-

eration of consequent variables. The events that follow a response are the consequent variables. These variables are important in determining whether the response will be continued or discontinued. The consequences of a response also determine the strength of the response. Any consequence that leads to a reward for the person will strengthen the response it follows. Rewards may include getting something one wants (for example, studying results in a good grade on a test) or ending something that is unpleasant (for example, leaving a situation results in reduced anxiety). Consequences that do not reward the person lead to a weakening of the behavior he or she follows.

The goal of the behavioral assessment is to describe fully the problem behavior and the events that surround it. While earlier approaches tried to limit the assessment to one or two behaviors identified as problems, more recent approaches apply the assessment methodology to clusters of behaviors that may form syndromes or diagnostic categories.

A variety of approaches are used to gather the information that constitutes a behavioral assessment. Naturalistic observation is used to observe the person's behavior in the settings most germane to the behaviors of interest. These settings may include home, school, work, hospital, and others. In self-monitoring, the person observes and records each instance of the behavior of interest. Researchers use role playing and controlled observations to study the behaviors of interest while maintaining more control over the environment than is possible with naturalistic observation. Rating scales are also used to determine the intensity of the behavior under study.

"Personality" is a general term that summarizes the group of behaviors associated with a person's tendency to respond in certain ways. Most behaviorists think that personality is too general a term and that it does not provide much usable information. Nevertheless, personality is assessed in a variety of ways. One approach is to use rating scales. Rating scales assess the intensity of a particular behavior or feeling. The rating may be done by the person being rated (self-rating), by peers, by professionals, or by anyone in a position to observe the behaviors of interest.

In his classic work *Personality and Prediction: Principles of Personality Assessment* (1973), Jerry Wiggins describes one rating scale that provides a multidimensional approach to assessing personality. The semantic differential asks respondents to describe the meaning of a word on each of three scales using dichotomous adjectives to measure the dimensions of evaluation (good versus bad), potency (powerful versus weak), and activity (active versus passive). This particular approach provides information about the intensity and meaning of emotionally laden words or concepts. Other rating scales focus on the intensity to which the concept being rated is experienced.

Applications

Behavioral assessment and personality rating scales have many uses in psychology. There are three major ways of interpreting the data obtained from these assessment procedures. Client-referenced interpretation compares one performance on a task

with another performance by the same person on the same task. The simplest example of this is a comparison of pretreatment and post-treatment performance on a task to see if the person improved after the intervention. There is no consideration of how other people do on the task. Criterion-referenced interpretation compares the person's performance to a previously established level of acceptable performance. Finally, norm-referenced interpretations compare an individual's performance with normative data; thus, it is possible to learn how a person compares with all others for whom norms are available. The comparison could be with everyone who has completed the task or taken the test in the normative sample, or with specific age or ethnic groups, genders, or occupational groups. Norm-referenced interpretations can be used to compare an individual with any group for which norms are available. It is up to the psychologist to ensure that the normative group used for comparison is one that is appropriate for the person being evaluated.

Behavioral assessment has been used in industrial and organizational settings. Robert P. Bush and others (1990) describe a procedure for developing a scale to assess the performance of people working in retail sales. They point out the shortage of good information about the performance of people in retail sales and the need for more research in this area. Their article describes the important role the sales force has in the success of the business and the need to measure the behavior of the sales representatives. Richard Reilly and others (1990) describe the use of a behavioral assessment procedure within the context of an assessment center. Assessment centers are established by businesses in order to simulate the tasks associated with different positions. It is assumed that superior performance in the assessment center will translate into superior performance on the job. Reilly and others demonstrated that by incorporating behavioral assessment procedures—checklists—into the assessment center procedures, the validity of the assessment center results was improved.

The clinical use of behavioral assessment procedures is quite extensive and includes both children and adults. Thomas Ollendick and Greta Francis have reviewed the use of behavioral assessment techniques in the assessment and treatment of children with phobias. These authors provide examples of how to obtain information about fears and phobias from children by asking them questions in both direct and indirect ways. A variety of rating scales are reviewed, including the Fear Survey Schedule for Children and and the Children's Manifest Anxiety Scale. The Fear Survey Schedule for Children consists of eighty items pertaining to childhood fears, which the child rates on a scale ranging from "none" to "a lot." Normative data are available for children between the ages of seven and sixteen years. It is possible to obtain information about fear of failure, fear of the unknown, fear of danger and death, and so on. The Children's Manifest Anxiety Scale measures the extent of anxiety the child feels. This scale assesses the child's anxiety in the domains of physiological responsiveness, worry/oversensitivity, and concentration. It is appropriate for children between the ages of six and eighteen years.

Other scales for children, reviewed by Larry D. Evans and Sharon Bradley-

Johnson, assess adaptive behavior. Adaptive behavior is the degree to which a child is able to cope effectively with the environment based upon the child's age. Deficits in adaptive behavior are an important part of the definition of mental retardation. These authors review several measures of adaptive behavior that are completed by teachers, caregivers, or psychologists. Comparisons are made with existing scales assessing adaptive behavior. Rating scales are used to measure various behaviors in adolescents and children. In addition to the behaviors mentioned above, there are rating scales for attention and distractibility, autism, and various psychiatric syndromes.

Randall Morrison describes a variety of rating scales that assess adult psychopathology. These include scales of schizophrenic symptoms that are completed by the psychologist interviewing and observing the person suspected of having schizophrenia. A scale of global adjustment is also reviewed by Morrison. This scale is a 100-point rating scale that is useful with a wide variety of psychiatric patients. It focuses on the extent to which the person has coped effectively with environmental events during the past year. According to Morrison, it has some value in predicting how well a person will cope after treatment, as well as in assessing the effectiveness of the treatment.

There are many rating scales for children, adolescents, and adults. They assess a wide range of behaviors and vary in the degree to which they have been constructed with attention to the standards for test development and the compilation of appropriate norms.

Perspective and Prospects

The history of psychological assessment is replete with examples of attempts to measure the characteristics and traits of people. These traits and characteristics are defined as underlying psychological processes that are pervasive aspects of personality. In fact, they define the personality for many psychologists. Traditional approaches to psychotherapy try to identify the traits in order to develop a therapeutic strategy that will reveal the unconscious conflicts.

Unlike traditional approaches to psychological assessment and psychotherapy, behavioral assessment arose from the need of behavior therapists to describe more completely the events surrounding the problem behavior. The history of behavior therapy is one of defining a target behavior and designing a program to change the behavior. As behavior therapy developed and became more sophisticated, it became apparent that more information was needed to identify the antecedent stimuli, the organismic filters that were operating, which aspect of the triple-response system was relevant, and what the consequences of the target behavior were. In response to that need, behavioral assessment was developed. Initially, behavioral assessment was rather straightforward and did not bother much with the procedures of psychological test construction since the process itself was one of observing behavior rather than making inferences about behavior from test responses. As behavioral assessment has matured, it has become more concerned with meeting the standards of test construction applied to other assessment methods and has become more sophisticated and complex.

Behavioral assessment is used to measure clusters of behaviors and syndromes rather than merely isolated problem behaviors. More attention is paid to the extent to which standards of validity and reliability are met. Psychologists are putting behavioral assessment to the test of demonstrating its worth as an assessment procedure: It must add something to the understanding of the person being assessed in order to justify its use. The challenge is being met, and behavioral assessment continues to provide valuable information about the person being assessed. Information obtained is useful in determining the extent to which certain behaviors are problems. Other information is used in determining the personality of the individual, with all the attendant traits and characteristics.

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James T. Trent

See also:

Abnormality: Behavioral Models; Addictive Personality and Behaviors; Antisocial Personality; Behavioral Family Therapy; Borderline, Histrionic, and Narcissistic Personalities; Codependent Personality; Personality: Psychophysiological Measures; Phobias; Projective Personality Traits; Type A Behavior Pattern.

Behavioral Family Therapy

Type of psychology: Psychotherapy
Fields of study: Behavioral therapies; group and family therapies

Behavioral family therapy is a type of psychotherapy that applies the principles of learning theory to the treatment of family problems. It is most frequently used to treat parent-child problems, with the parents being taught to apply behavioral techniques in order to correct their children's misbehavior.

Principal terms

CIRCULAR CAUSALITY: the concept that behavior occurs as the result of many factors and circumstances, not as the product of a simple, cause-and-effect relationship

CLASSICAL CONDITIONING: the process by which new behavior becomes more likely to recur because it has been paired with old behavior that has been positively reinforced

CONTINGENCY MANAGEMENT: the providing and removing of positive rewards in accordance with whether the individual being treated engages in the expected behavior

LINEAR CAUSALITY: the concept that a specific action happens as the direct result of the occurrence of another action (simple cause and effect)

OPERANT CONDITIONING: the process by which behavior is made to occur at a faster rate because a specific action is followed by positive reinforcement

POSITIVE REINFORCEMENT: the rewarding consequences that follow a behavior, which increase the rate at which the behavior will recur

RESPONSE COST: negative consequences that follow the commission of an undesired behavior, decreasing the rate at which the misbehavior will recur

Overview

Behavioral family therapy is a type of psychotherapy that is used to treat families in which one or more family members are exhibiting behavior problems. Behavioral therapy was employed originally in the treatment of individual disorders such as phobias (irrational fears). Behavioral family therapy represents an extension of the use of behavioral techniques from the treatment of individual problems to the treatment of family problems. The most common problems treated by behavioral family therapy are parent-child conflicts; however, the principles of this type of therapy have been used to treat other familial difficulties, including marital and sexual problems.

The principles of learning theory underlie the theory and practice of behavioral family therapy. Learning theory was developed through laboratory experimentation largely begun by Ivan Pavlov and Edward L. Thorndike during the early 1900's. Pavlov was a Russian physiologist interested in the digestive processes of

dogs. In the process of his experimentation, he discovered several properties regarding the production of behavior which have become embodied in the theory of classical conditioning. Pavlov observed that his dogs began to salivate when he entered their pens because they associated his presence (new behavior) with their being fed (previously reinforced old behavior). From this observation and additional experimentation, Pavlov concluded that a new behavior which is regularly paired with an old behavior acquires the same rewarding or punishing qualities that the old behavior had. That is, new actions become conditioned to produce the same responses as the previously reinforced or punished actions.

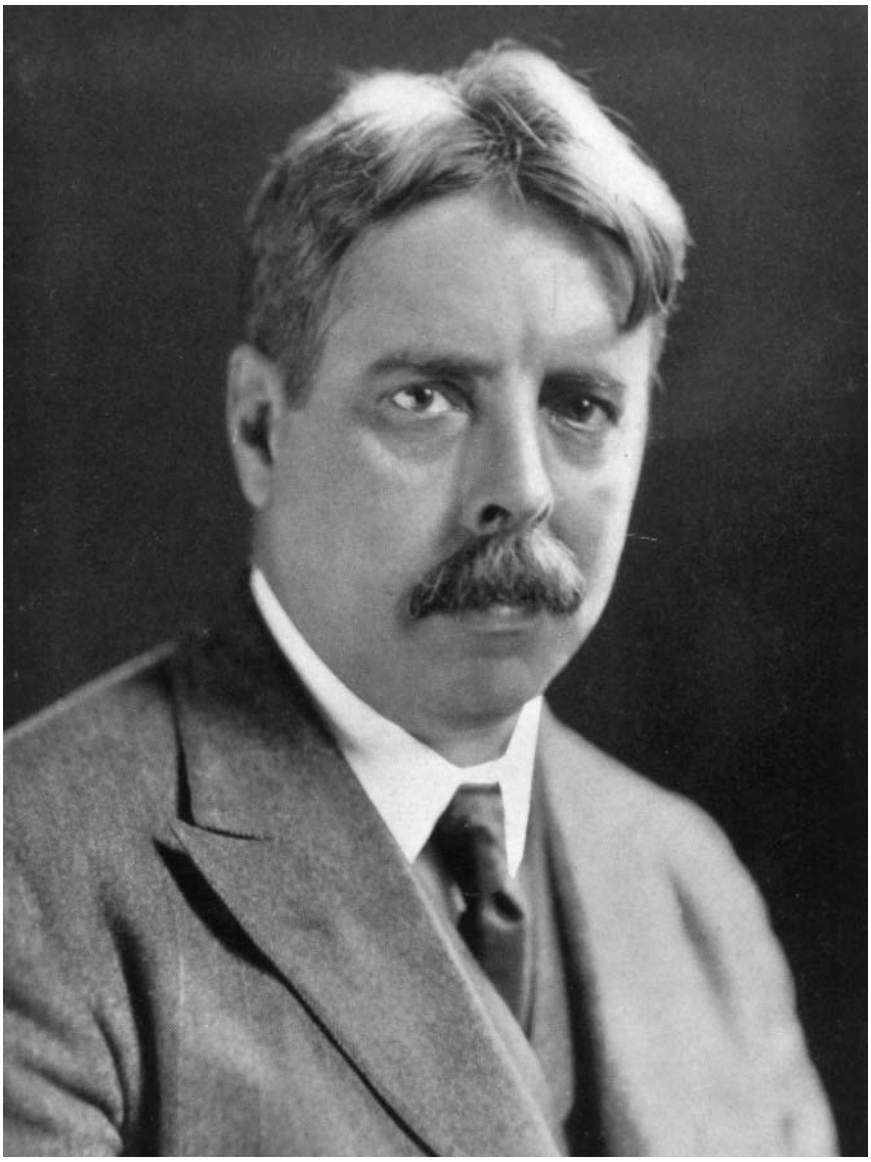
Another component of learning theory was discovered by Thorndike. Thorndike observed that actions followed closely by rewards were more likely to recur than those not followed by rewards. Similarly, he observed that actions followed closely by punishment were less likely to recur. Thorndike explained these observations on the basis of the law of effect. The law of effect holds that behavior closely followed by a response will be more or less likely to recur depending on whether the response is reinforcing (rewarding) or punishing. Building on the observations of Thorndike, B. F. Skinner developed the theory of operant conditioning in the 1930's. Operant conditioning is the process by which behavior is made to occur at a faster rate when a specific behavior is followed by positive reinforcement. An example that Skinner used in demonstrating operant conditioning involved placing a rat in a box with different levers. When the rat accidentally pushed a predesignated lever, it was given a food pellet. As predicted by operant conditioning, the rat subsequently increased its pushing of the lever which provided it with food.

The principles of classical and operant conditioning serve to form the foundation of learning theory. Although initially derived from animal experiments, learning theory also was applied to humans. Psychologists who advocated learning theory began to demonstrate that all behavior, whether socially appropriate or inappropriate, occurred because it was either classically or operantly conditioned. John B. Watson, a psychologist of the early twentieth century, illustrated this by producing a fear of rats in an infant named Albert by repeatedly making a loud noise when a rat was presented to Albert. After a number of pairings of the loud noise with the rat, Albert began to show fear when the rat was presented.

In addition to demonstrating how inappropriate behavior was caused, behavioral psychologists began to show how learning theory could be used to treat people with psychological disorders. Joseph Wolpe, a pioneer in the use of behavioral treatment during the 1950's, showed how phobias could be alleviated by using learning principles in a procedure termed systematic desensitization. Systematic desensitization involves three basic steps: teaching the phobic individual how to relax; having the client create a list of images of the feared object (for example, snakes), from least to most feared; and repeatedly exposing the client to the feared object in graduated degrees, from least to most feared images, while the individual is in a relaxed state. This procedure has been shown to be very effective in the treatment of phobias.

Behavioral family therapy makes the same assumptions regarding the causes of both individual and family problems. For example, consider the fictional case of the Williams family, who came to treatment because their seven-year-old son,

John, refused to sleep in his own bed at night. In attempting to explain John's behavior, a behaviorally oriented psychologist would seek to find out what positive reinforcement John was receiving in response to his refusal to stay in his own bed. It may be that when John was younger his parents allowed him to sleep with them, thus reinforcing his behavior by giving him the attention he desired. Now that John



Edward L. Thorndike proposed the law of effect, which holds that behavior closely followed by a response will be more or less likely to recur depending on whether the response is reinforcing (rewarding) or punishing. (Library of Congress)

is seven, however, his parents believe that he needs to sleep in his own bed, but John continues to want to sleep with his parents because he has been reinforced by being allowed to sleep with them for many years. This case provides a clinical example of operant conditioning in that John's behavior, because it was repeatedly followed by positive reinforcement, was resistant to change.

Applications

Behavioral family therapy is a treatment approach that includes the following four steps: problem assessment, family (parent) education, specific treatment design, and treatment goal evaluation. It begins with a thorough assessment of the presenting family problem. This assessment process involves gathering the following information from the family: what circumstances immediately precede the problem behavior; how family members react to the exhibition of the client's problem behavior; how frequently the misbehavior occurs; and how intense the misbehavior is. Behavioral family therapy differs from individual behavior therapy in that all family members are typically involved in the assessment process. As a part of the assessment process, the behavioral family therapist often observes the way in which the family handles the presenting problem. This observation is conducted in order to obtain firsthand information regarding ways the family may be unknowingly reinforcing the problem or otherwise poorly handling the client's misbehavior.

Following the assessment, the behavioral family therapist, with input from family members, establishes treatment goals. These treatment goals should be operationalized; that is, they should be specifically stated in order that they may be easily observed and measured. In the example of John, the boy who refused to sleep in his own bed, an operationalized treatment goal would be as follows: "John will be able to sleep from 9:00 P.M.: to 6:00 A.M.: in his own bed without interrupting his parents during the night."

Once treatment goals have been operationalized, the next stage involves designing an intervention to correct the behavioral problem. The treatment procedure follows from the basic learning principles previously discussed. In cases involving parent-child problems, the behavioral family therapist educates the parents in learning theory principles as they apply to the treatment of behavioral problems. There are three basic learning principles that are explained to the child's parents. First, positive reinforcement should be withdrawn from the unwanted behavior. For example, a parent who meets the demands of a screaming preschooler who throws a temper tantrum in the checkout line of the grocery store because he or she wants a piece of candy is unwittingly reinforcing the child's screaming behavior. "Time-out" is one procedure used to remove the undesired reinforcement from a child's misbehavior. Utilizing time-out involves making a child sit in a corner or other nonreinforcing place for a specified period of time (typically, one minute for each year of the child's age).

Second, appropriate behavior that is incompatible with the undesired behavior should be positively reinforced. In the case of the screaming preschooler, this would involve rewarding him or her for acting correctly. An appropriate reinforcer

in this case would be giving the child his or her choice of a candy bar if the child were quiet and cooperative during grocery shopping—behavior inconsistent with a temper tantrum. In order for positive reinforcement to have its maximum benefit, the child should be informed about what is expected of him or her and what reward he or she will receive for fulfilling these responsibilities prior to the beginning of the specific activity (for example, grocery shopping). This process is called contingency management because the promised reward is made contingent upon the child's acting in a prescribed manner. In addition, the positive reinforcement should be given as close to the completion of the appropriate behavior as possible.

Third, aversive consequences should be applied when the problem behavior recurs. That is, when the child engages in the misbehavior, he or she should consistently experience negative costs. In this regard, response cost is a useful technique because it involves taking something away or making the child do something he or she finds unrewarding as a way of making misbehavior cost him or her. For example, the preschooler who has a temper tantrum in the checkout line may have a favorite dessert, which he or she had previously selected while in the store, taken away as the cost for throwing a temper tantrum. As with positive reinforcement, response cost should be applied as quickly as possible following the misbehavior in order for it to produce its maximum effect.

Once the parents receive instruction regarding the principles of behavior therapy, they are actively involved in the process of designing a specific intervention to address their child's behavior problems. The behavioral family therapist relates to the parents as cotherapists with the hope that this approach will increase the parents' involvement in the treatment process. In relating to Mr. and Mrs. Williams as cotherapists, for example, the behavioral family therapist would have the couple design a treatment intervention to correct John's misbehavior. Following the previously described principles, the Williamses might arrive at the following approach: The couple would refuse to give in to John's demands to sleep with them; John would receive a token for each night he slept in his own bed (after earning a certain number of tokens, he could exchange them for toys); and John would be required to go to bed fifteen minutes earlier the following night for each time he asked to sleep with his parents.

Once the intervention has been implemented, the therapist, together with the parents, monitor the results of the treatment. This monitoring process involves assessing the degree to which the established treatment goals are being met. For example, in the Williamses' case, the treatment goal was to reduce the number of times that John attempted to get into bed with his parents. Therapy progress, therefore, would be measured by counting the number of times that John attempted to get into bed with his parents. Careful assessment of an intervention's results is essential in order to determine whether the intervention is accomplishing its goal.

Perspective and Prospects

The development of behavioral family therapy occurred in several stages, starting with the discovery of the principles of learning theory in the animal laboratories of Pavlov and Thorndike. These discoveries were refined by Watson and Skinner

before being applied to the treatment of individual problems, most notably by Wolpe. Gerald Patterson and Richard Stuart, beginning in the late 1960's, were among the first clinicians to apply behavioral techniques, previously utilized with individuals, to the treatment of family problems. While Patterson worked primarily with parent-child problems, Stuart extended behavioral family therapy to the treatment of marital problems.

Given the increasing prevalence of family problems, as seen by the rise in the number of divorces and cases of child abuse, the advent of behavioral family therapy has been welcomed by many therapists who treat families. The findings of a study by William Quinn and Bernard Davidson (1984) revealed the increasing use of this therapy, with more than half of all family therapists reporting the use of behavioral techniques in their family therapy. In spite of its popularity, this type of therapy has not been without its critics. For example, behavioral family therapy's explanations regarding the causes of family problems differ from those given by the advocates of other family therapies. One major difference is that behavioral family therapists are accused of taking a linear (as compared to a circular) view of causality. From a linear perspective, misbehavior occurs because A causes B and B causes C. Those who endorse a circular view of causality, however, assert that this simplistic perspective is inadequate in explaining why misbehavior occurs. Taking a circular perspective involves identifying multiple factors that may be operating at the same time in order to determine the reason for a particular misbehavior. For example, consider John's refusal to sleep in his own bed. From a linear view of causality, John's misbehavior is seen as the result of being reinforced for sleeping with his parents. According to a circular perspective, however, John's behavior may be the result of many factors, all possibly occurring together, such as his parents' marital problems or his genetic predisposition toward insecurity.

Partially in response to this criticism, attempts have been made to integrate behavioral family therapy with other types of family therapy. Another major purpose of integrative efforts is to address the resistance often encountered from families during treatment. Therapeutic resistance is a family's continued attempt to handle the presenting problem in a maladaptive manner in spite of having learned better ways. In the past, behavioral family therapists gave limited attention to dealing with family resistance; however, behavioral family therapy has attempted to improve its ability to handle resistance by incorporating some of the techniques used by other types of family therapy.

In conclusion, numerous research studies have demonstrated that behavioral family therapy is an effective treatment of family problems. One of the major strengths of behavioral family therapy is its willingness to assess objectively its effectiveness in treating family problems. Because of its emphasis on experimentation, behavioral family therapy continues to adapt by modifying its techniques to address the problems of the modern family.

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R. Christopher Qualls

See also:

Abnormality: Behavioral Models; Autism; Bed-Wetting; Child and Adolescent Psychiatry; Cognitive Behavior Therapy; Jealousy; Juvenile Delinquency; Operant Conditioning Therapies; Psychotherapy: Children; Psychotherapy: Goals and Techniques; Sibling Rivalry; Strategic Family Therapy.

Biofeedback and Relaxation

Type of psychology: Stress
Fields of study: Behavioral therapies; coping; stress and illness

Responses to stress by the body have traditionally been thought to be made up of involuntary reactions which are beyond the control of the individual. Some of these responses become maladaptive, and may now be brought under control by using various relaxation techniques and biofeedback.

Principal terms

AUTOGENIC PHRASES: phrases used by the therapist to help the client while relaxing and performing biofeedback (for example, "Your hands feel heavy and warm")

CLASSICAL CONDITIONING: learning that occurs by contiguously pairing two stimuli, whereby the second stimulus comes to yield a response similar to the first; traditionally thought to be successful with involuntary responses mediated by the autonomic nervous system

ELECTROENCEPHALOGRAPHY: measurement of the electrical output of the brain, which may be brought under voluntary control by biofeedback and relaxation

ELECTROMYOGRAPHY: measurement of the electrical output of muscles, which may be brought under voluntary control by biofeedback and relaxation

GALVANIC SKIN RESPONSE (GSR): a measurement of the electrical conductivity of the skin; an operational measure of anxiety which may be brought under voluntary control by biofeedback and relaxation

INSTRUMENTAL CONDITIONING: learning that occurs from reinforcing a response; traditionally thought to be successful with voluntary responses mediated by the skeletal nervous system

THERMAL RESPONSE: a measurement of the amount of blood flow to various areas of the body recorded by heat sensors; may be brought under voluntary control by biofeedback and relaxation

Overview

From the day people are born, and even before that, they are subjected to a variety of stressors from the environment around them. Each one of these exacts a certain toll on their bodies. Some stressors seem to affect individuals differently, while others seem to have a universal effect; in any case, both the mind and the body must mobilize to deal effectively with these factors. The individual is usually able to handle these problems by using various coping strategies to help alleviate the stress. The problem arises when too many stressors are present at one time or when these stressors last too long. The individual must adapt or change his or her coping strategies to return to a normal equilibrium. A coping strategy is a process which

takes effort and is learned; the individual must acquire this coping skill as one acquires any skill. It must be practiced.

If the stressors are not dealt with adequately, fatigue and illness may result. In the most serious circumstances, the organism can die. Hans Selye reported on what he termed the general adaptation syndrome (GAS). As stressors affect an organism, a series of neurological and biological responses occur to protect the body. If these responses are prolonged and go unchecked, however, the body will begin to break itself down. In the first phase, the alarm phase, the body mobilizes itself. The adrenal glands enlarge, and release epinephrine (adrenaline) and steroids to cope. After a while, the body adapts and seems to be normal; this is the resistance stage. In fact, the body is not normal. It is very vulnerable to further stress, and, if subjected to additional stressors, it will enter the third stage, exhaustion. The organism can then become extremely sick or die.

It becomes essential for the individual to adopt a successful coping strategy in order to avert this progression of events. Two such techniques will be discussed here. Biofeedback is a procedure whereby the individual is given information about how a variety of body responses are reacting in various circumstances. The individual is generally unaware of these reactions, but biofeedback technology allows the individual to monitor them and eventually bring them under control. Autonomic, visceral responses to stress have traditionally been thought to be involuntary and automatic. Biofeedback is a technique aimed at gaining control over these reactions. Voluntary responses can affect these visceral responses, and this fact complicates the ultimate effectiveness of biofeedback.

Neal E. Miller was one of the early pioneers in the field. His work has been applied to the control of a wide variety of stress-related problems through the use of biofeedback. The control of what have been termed psychosomatic problems has been accomplished using Miller's assumptions. Individuals have learned to control blood pressure, heart rate, muscle spasms, headaches, and myriad other ailments through biofeedback techniques.

Miller believed that these responses to stress can be changed through the use of instrumental conditioning and reinforcement. When a machine makes this information available to a person, the responses can be reinforced (or they can reinforce themselves) when a therapeutic change occurs. The same principle is at work when an experimental rat learns to press a bar for food.

Another coping strategy which can be used to deal with stressors is the adoption of one of a variety of relaxation procedures. As odd as it may sound to some, people must learn to relax in many situations, and this takes practice. Relaxation techniques are often used in conjunction with biofeedback, which sometimes makes it difficult to determine which of the two procedures is responsible for the changes that occur and to what degree they are acting in relationship to each other.

There are several relaxation techniques, and different techniques are successful for different individuals. One of the most widely used techniques is progressive muscle relaxation, proposed by Edmund Jacobson. The individual is instructed to tense a particular muscle group and hold it for several seconds, paying attention to the feelings associated with this state. Then the individual is told to relax the

muscle group and is asked to concentrate on the different feelings while the muscle is relaxed. The major muscle groups of the body are put through this procedure. Ultimately, the individual is able to reproduce the relaxed sensations when he or she feels tense.

Rhythmic breathing techniques are also used for relaxation in order to combat stress. The person learns to inhale through the nose to the count of three and exhale through the mouth to the count of five. Between each breath is a count of two. The breathing should be with the stomach as much as possible, as opposed to the chest. Meditation, another relaxation technique that often incorporates rhythmic breathing, may require that the person either visualize an object or repeat a word or phrase with each breath. This prevents the person's mind from wandering to the anxiety-provoking stimuli.

Applications

One of the experiments that pioneered the use of biofeedback in a clinical setting was conducted by Neal Miller using white rats. Miller wanted to demonstrate that the animal was able to learn to increase the blood flow to one ear by dilating the capillaries in the ear. He needed to ensure that the animal was not using a skeletal response ("cheating") to influence this response. For example, a human can accomplish this task by covering the ear with the palm of the hand for a period of time. The question Miller was asking was, could this be done without a skeletal response? Miller administered the drug curare to the rat to incapacitate the skeletal nervous system and kept the animal alive by using an artificial respirator. He attached a sensitive thermometer, which was able to detect slight changes in temperature caused by differential blood flow, to the animal's ear. When a slight increase in temperature was detected, the message was sent to a computer, which delivered an electrical reinforcement to the brain of the subject. This represents the same mechanism which establishes the bar-pressing response in a white rat: operant conditioning. The experiment was successful.

One of the first applications of this experiment to humans came when a woman who had suffered paralysis in an automobile accident was unable even to remain in a sitting position without her blood pressure dropping to dangerous levels. Miller and his staff assembled a biofeedback device which allowed the woman to determine the nature of her blood pressure from moment to moment. No external reinforcement (such as food) was necessary in this case; knowing that the response was therapeutic was reinforcement enough. The woman was able to learn how to raise and lower her blood pressure at will through the use of the biofeedback device. By learning to control her blood pressure (and eventually wean herself off the biofeedback machine), she was able to become more productive and do some tasks on her own.

The concept of biofeedback, then, can be generalized to learning to control any of the visceral responses to accomplish clinically a healthier state. As society's stressors increase, many of the visceral responses can cause clinical problems. Among the most common are headache symptoms: muscular (tension) and vascular (migraine). By using electromyography (EMG) biofeedback, a person can

monitor the muscle tension in the forehead and learn to decrease the tension by obtaining constant auditory feedback. By the same token, thermal biofeedback machines can monitor blood flow to the cranial arteries and can teach a person how to reduce the volume of blood to this area and redirect it to the periphery of the body. This often helps other problems associated with migraines such as Raynaud disease, in which the extremities are cold because of lack of blood flow.

The galvanic skin response (GSR) is one of the most common responses used to measure the degree of anxiety and stress. In fact, it is one of the measures in a lie detector, which assumes that when one lies, anxiety increases automatically. The GSR can be brought under control using biofeedback methods. For example, if a pregnant woman is anxious about the upcoming birth, she can receive constant feedback from a GSR biofeedback apparatus and learn to lower the GSR by attending to the machine. As she learns to accomplish this, she can apply these skills on her own and eventually use them during the birth process.

Yet another application of biofeedback in coping with stress has been the use of the technique in controlling brain waves through electroencephalography (EEG) biofeedback. It is thought that the brain's alpha wave (eight to thirteen cycles per second) represents the resting brain. By placing electrodes on the scalp and having a machine monitor the amount of alpha activity from moment to moment, a person can learn to increase alpha production and reduce stress by doing so.

Prior to and during biofeedback training, various relaxation techniques are employed to help with the procedure. This actually leads to an academic problem: Which technique is working and to what degree? The use of Jacobson's progressive muscle relaxation with asthmatic children and adults helped to reduce the frequency and severity of the incidents. One of the common problems that arises from increased stress is insomnia. The use of Jacobson's technique has proved useful in combating this problem in several documented cases. Autogenic phrases are often employed with biofeedback, as well. For muscular disorders, phrases such as "My leg is heavy" can be used. For cardiac problems, a common phrase is "My heartbeat is calm and regular."

Meditation has been shown to produce an increase in alpha-wave activity, as has biofeedback. Practitioners of yoga focus on a phrase or word (a mantra) and exclude everything else. The nervous system shows evidence of reduced stress and arousal. A variety of businesses have used meditation programs for their employees and have realized improved health and productivity from them.

Perspective and Prospects

The ability to gain voluntary control over the autonomic nervous system responses in order to help cope with stressors is a valuable skill. The area of biofeedback has important implications for both the theoretical and clinical sides of the field of psychology. First, it is traditionally thought that classical conditioning deals with the "involuntary" nervous system responses, while instrumental conditioning mediates the "voluntary" skeletal responses. Since biofeedback deals with visceral autonomic nervous system reactions and is basically a form of instrumental conditioning, this traditional dichotomy must be brought into question. Biofeed-

back, a phenomenon of the second half of the twentieth century, is still in its infancy. Biofeedback techniques ultimately aim at bringing unconscious, previously uncontrolled body responses into conscious awareness in order to bring them under control therapeutically. It is a wonderful example of the interaction of the mind and body and the complicated dilemma of how and when they interact.

Biofeedback therapy invariably uses other therapies, such as relaxation and meditation, along with it in the clinical setting. This naturally raises the question of whether, and to what degree, biofeedback, relaxation, meditation, and their interactions are responsible for changes in the condition of the client. Many experiments are being conducted to determine the answers to these questions, and the results are equivocal. It is also important to know what type of feedback, what type of feedback schedule, and what additional therapies are indicated for various problems.

The control of stress-related disorders without drugs or surgery is obviously a desirable goal, and biofeedback, relaxation, and meditation seem to hold some promise in this field for certain types of cases. The applications seem extensive. Hypertension, insomnia, sexual dysfunction, cardiac arrhythmias, asthma, and gastrointestinal disorders are but a few of the problems which have been tackled so far, with varying degrees of success. The jury is still out concerning the degree of success of biofeedback and relaxation as coping strategies for dealing with stress. The results so far, however, are promising and are spawning much research.

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Jonathan Kahane

See also:

Cognitive Behavior Therapy; Operant Conditioning Therapies; Psychosomatic Disorders; Stress; Stress: Coping Strategies; Type A Behavior Pattern.

Borderline, Histrionic, and Narcissistic Personalities

Type of psychology: Psychopathology
Fields of study: Personality assessment; personality disorders; personality theory

Borderline, histrionic, and narcissistic personalities are three of the major personality disorders in the diagnostic system. The diagnosis of these disorders is highly controversial, and their causes are largely unknown.

Principal terms

ANTISOCIAL PERSONALITY: a personality disorder characterized by a history of chronic criminal and otherwise irresponsible behavior
EGO-SYNTONIC: perceived as acceptable to the person and as consistent with one's self-image
ENTITLEMENT: the expectation of special or unusually favorable treatment by others, which is commonly seen among narcissistic personalities
HETEROGENEITY: differences among individuals given the same diagnosis
OBJECT RELATIONS THEORY: a personality theory that focuses upon the relations among internalized persons and objects and their implications for personality development
PERSONALITY DISORDER: a disorder in which personality traits are rigid and maladaptive and produce considerable impairment or distress for the individual
SCHIZOPHRENIA: a condition characterized by severe abnormalities in thinking processes
SOMATIZATION DISORDER: a condition characterized by multiple physical symptoms lacking any demonstrated medical basis
VALIDITY: the extent to which a psychological test measures what it is intended to measure

Causes and Symptoms

Of all psychiatric disorders, the group of conditions that psychologists call personality disorders is perhaps the most puzzling and controversial. According to most researchers, personality disorders can be viewed as conditions in which personality traits are rigid and maladaptive and cause considerable impairment or distress for the individual. Some of these disorders are notable for the psychological pain that they cause the person afflicted with them. Others, however, are more notable for the psychological pain that they cause others. Borderline, histrionic, and narcissistic personality disorders fall primarily into this latter group. This is not to imply that individuals with these disorders do not suffer: Many such persons experience chronic feelings of depression, emptiness, and anger. Nevertheless, what distin-

guishes people with these disorders from the majority of other psychiatric patients is the distress that they inflict upon others, especially those close to them.

These three disorders share at least two important features. First, individuals with these disorders tend to view their problems as ego-syntonic—that is, as acceptable and as consistent with their self-image. As a result, such individuals tend to view their difficulties in life as stemming primarily from others' actions, rather than from their own. Second, the behavior of individuals with these disorders tends to be impulsive, unpredictable, and dramatic. Given the similarities among these three disorders, perhaps it is not surprising that they overlap substantially within individuals; a person with one of these disorders is likely to have features of one or both of the other two. Nevertheless, despite their commonalities, these disorders possess a number of important characteristics that differentiate them from one another; these are outlined below.

Individuals with borderline personality share one major feature: instability. More specifically, borderline personality, which is generally found among women, is characterized by instability in sense of self, relationships with others, and mood. In fact, borderline personalities have been described as possessing a kind of "stable instability"—their instability seems an ingrained part of their personality structure.

One of the central features of borderline personality is confusion with regard to identity. Borderline personalities often express concerns such as "I don't really know who I am," and they may be uncertain regarding what types of friends to have, values to hold, or career aspirations to pursue. In many cases, borderline personalities appear to rely heavily upon others to define their identity. Perhaps as a consequence, they often go to great lengths to avoid abandonment and frequently feel "empty" or bored, especially when alone.

Borderline personalities tend to be impulsive individuals who may excessively eat, drink alcohol, spend money, or have sex. In addition, they often explode angrily in response to minor provocations. Suicide attempts, threats, and gestures are common, as is self-mutilating behavior such as wrist-slashing. The relationships of borderline personalities frequently alternate between the extremes of overidealization and devaluation: Friends or lovers are initially worshiped or "placed on a pedestal" but abruptly fall from grace when they are perceived as having erred. Borderline personalities also tend to be moody individuals whose emotions shift radically with little or no warning.

Histrionic personalities who, like borderline personalities, tend be to female, are characterized by excessive emotionality and attention-seeking. Such persons tend to be extremely dramatic and often seem to be playing the part of an actor or actress—hence the term "histrionic." They frequently express their emotions with great intensity; for example, they may cry uncontrollably after a mild rebuff or passionately hug individuals they have just met.

Histrionic personalities tend to enjoy "being in the spotlight" greatly and are often uncomfortable when they are not being showered with adoration or praise. Moreover, they are often sexually seductive individuals who behave flirtatiously and are overconcerned with their dress and appearance. Histrionic personalities are

often vain and self-centered individuals who have difficulty postponing gratification. Finally, many histrionic personalities have been described as possessing a style of speech that is vague and impressionistic: For example, they may make frequent use of hyperbolic statements such as "Oh, it was just terrible," or "She is absolutely wonderful."

Finally, narcissistic personalities are characterized by egocentricity, lack of empathy, and oversensitivity to negative evaluation by others. (In contrast with borderline and histrionic personalities, little is known about the sex ratio of this disorder.) Narcissistic personalities often have an inordinate sense of self-importance and may be surprised or indignant when others fail to appreciate their "unique" qualities. In addition, they are often consumed with fantasies of greatness, power, or meeting the perfect romantic partner.

Such individuals commonly possess "entitlements," that is, expectations of unusually favorable treatment by others. For example, they may believe that certain rules or norms, such as having to wait one's turn in line or having to pay taxes, should not apply to them. Narcissistic personalities often appear to have little empathy; for example, they may become enraged when a friend who is very ill cancels a date. In addition, they often seem quite willing to "step on others' toes" to accomplish their goals. Finally, narcissistic personalities often tend to be very envious of other peoples' successes or accomplishments.

Unfortunately, there has been relatively little research done on these three disorders. In part, this lack is probably a result of the fact that these disorders, especially borderline and narcissistic personality disorders, are relatively new additions to the diagnostic nomenclature. In addition, many of the symptoms of these disorders (for example, identity disturbance) are latent constructs that are difficult to measure with adequate reliability—that is, with consistency. Typically, the reliability of a psychiatric diagnosis is indexed by agreement among different observers. By this standard, the reliability of these disorders, as well as that of most personality disorders, is among the lowest of all psychiatric conditions: Two clinicians interviewing the same patient will often disagree on whether that patient has one of these disorders. This is important because reliability sets an upper limit upon validity—the extent to which a measure (in this case, a diagnosis) measures what it is intended to measure. As cited below, the validity of these disorders has been a major bone of contention among researchers.

Of the three disorders, borderline personality has been probably the most extensively researched. One question that has occupied many researchers is whether borderline personality is a single disorder or a group of disorders. Psychologist Harrison Pope and his colleagues found that borderline personality seems to identify a rather heterogeneous group of patients—that is, there appear to be a number of important differences among individuals given a borderline diagnosis. Specifically, Pope found that some patients with borderline personality suffer from depression, whereas others suffer from a variety of personality disorders. Moreover, Pope reported that borderline personalities were difficult to distinguish from other personality-disordered patients with respect to variables such as outcome and family history of psychiatric illness. Similarly, Hagop Akiskal has

found that borderline personality overlaps substantially with a variety of psychiatric conditions, especially depression and antisocial personality, and personality disorder characterized by a history of chronic criminal and otherwise irresponsible behavior. Akiskal also reported that a subset of borderline patients appears to suffer from a mild from of schizophrenia, a condition characterized by severe abnormalities in thinking processes.

What are the implications of these findings? Although more research is necessary, it appears that patients given a borderline personality diagnosis do not all suffer from the same major underlying problem. Instead, these patients seem to have a variety of underlying pathologies that are superficially similar to one another. A major challenge for future researchers will be to isolate subgroups of borderline patients who are relatively homogeneous in terms of factors such as family history, outcome, and response to treatment.

If the nature of borderline personality is unclear, the picture is perhaps even fuzzier for histrionic and narcissistic personalities. There has been relatively little research on histrionic personality, although several investigators have found that, like borderline personality, it overlaps substantially with antisocial personality. In addition, there is good evidence that histrionic personalities are at substantially increased risk for somatization disorder, a condition characterized by multiple physical symptoms lacking any demonstrated medical basis. The reasons for this association, however, are unknown.

Similarly, little is known about narcissistic personalities, although it has been reported that such individuals are prone to episodes of depressed mood, especially in middle age. These episodes may occur when these individuals perceive that others no longer admire or idolize them. Some authors, including Christopher Lasch, have argued that narcissistic personality may be increasing in prevalence in Western culture, perhaps as a result of social changes such as an increased emphasis upon individualism, success, and hedonism. Nevertheless, systematic research is not yet available to corroborate this conjecture.

Although the causes of these three disorders are largely unknown, it seems likely that genetic factors play at least some role. Auke Tellegen and his colleagues have found that genetic factors strongly influence traits such as impulsivity, risk-taking, and the propensity to experience negative emotions, all of which are commonly found among individuals with these three disorders. Nevertheless, it also seems clear that environmental factors play an important role. For example, there is some evidence that borderline patients have an elevated rate of physical and sexual abuse in childhood. Although genetic factors cannot be excluded as a mediator of this association, it seems plausible that such abuse might lead predisposed individuals to develop problems such as identity disturbance, chronic anger, and other symptoms common to borderline personalities.

Treatment and Therapy

Almost nothing is known about the treatment of these disorders. There is evidence, however, that a subset of borderline personalities may benefit from medications used to treat depression. This is consistent with the possibility that at least some of

these patients have an underlying form of depression. Surprisingly, there have been virtually no systematic studies of the effectiveness of psychotherapy for any of these three conditions, although many individuals with these disorders have undergone psychotherapy for decades.

As noted, these three conditions overlap substantially within individuals. A number of researchers have argued that this overlap calls into question the validity of these conditions, because psychiatric disorders have traditionally been viewed as fairly distinct categories that do not blend into one another extensively. Thus, perhaps the primary challenge for researchers in this area will be to determine whether these three diagnoses actually represent three different conditions or instead represent variants of one underlying disorder.

Perspective and Prospects

The term "borderline personality" has a long and rather checkered history. Initially, this term referred to a condition "on the border" between neurosis and psychosis. Later, however, the term increasingly came to refer to a disorder that is qualitatively distinct from these two broad classes of conditions. In 1968, Roy Grinker and his colleagues delineated several features that they believed distinguished borderlines from other patients, including chronic anger and identity problems.

Another influential approach to borderline (as well as narcissistic) personality has been object relations theory. This theory focuses upon the relations among internalized persons and objects and the implications of these relations for personality development. Otto Kernberg, for example, discusses the "borderline personality organization," a character structure that he believes results from disturbances in the child's psychological internalization of parental images. According to Kernberg, borderline individuals never learn to incorporate good and bad representations of themselves or others simultaneously; consequently, they lack the capacity to view themselves and others as possessing both good and bad attributes.

Unfortunately, the overlap among these different conceptualizations is not as great as might be hoped; in 1978, J. Christopher Perry and Gerald Klerman reported that four commonly used criteria sets for borderline personality differed substantially in the symptoms they assess. The third edition of the *Diagnostic and Statistical Manual of Mental Disorders* (1980, DSM-III) provided researchers with the first standard set of criteria to assess the disorder.

Although the term "histrionic personality" did not formally appear until the advent of DSM-III, the "hysterical personality" has a lengthy history in psychiatry. Indeed, the concept of "hysteria" (literally, "wandering womb") dates back at least four thousand years to Egypt, where it was believed that the disorder was attributable to a displaced uterus. In the late nineteenth century, French neurologist Jean Charcot and, later, his student Sigmund Freud attempted to treat hysterics, many of whom probably had what would today be called histrionic personality, by means of hypnosis. In 1958, psychiatrists Paul Chodoff and Henry Lyons outlined the major features of hysterical personality, including vanity, dramatic behavior, and coquetry. Their conceptualization had a major influence upon subsequent criteria for histrionic personality.

Freud was one of the first major authors to discuss narcissism as a pathological character trait. According to Freud, narcissism resulted from a failure of the child to develop beyond the stage in which sexual impulses are focused upon the self. Thus, according to Freud, narcissistic individuals are psychologically "stuck" at a primitive stage of development characterized by an inability to direct sexual urges toward other individuals. More recently, object relations theorists, such as Heinz Kohut, have argued that narcissistic personality results from profound failures in parental empathy. As a result of these failures, according to Kohut, such individuals remain "stuck" at an early stage of development characterized by self-centeredness, resulting in a never-ending search for the love and admiration they never received.

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See also:

Antisocial Personality; Behavioral Assessment and Personality Rating Scales; Depression; Jealousy; Psychoactive Drug Therapy.

Brain Disorders

Type of psychology: Psychopathology
Fields of study: Organic disorders

Disorders of the brain can interfere with its role in the control of body functions, behavior, learning, and expression, while defects can also threaten life itself.

Principal terms

ANENCEPHALY: a fatal congenital condition in which tissues that should have differentiated to form the brain failed to do so

COMA: a condition of unconsciousness that may or may not be reversible; various degrees of coma are assessed by the presence or absence of reflex responses, such as pupil dilation when a light is shone into the eyes

DEMENTIA: a diseased state in which intellectual ability is ever decreasing; personality changes, decreased interest or ability to care for one's self, and long-term and short-term memory loss can indicate dementia

HYDROCEPHALUS: a painful condition caused by excess cerebrospinal fluid within the spaces of the brain

ISCHEMIA: an inadequate blood flow to a region; may be caused by an incomplete blockage in or constriction of a blood vessel (as may occur with atherosclerosis or a blood clot)

SEIZURE: a misfiring of cortical neurons that alters the patient's level of consciousness; the seizure may or may not involve muscular convulsions

STROKE: a complete loss of blood flow to a region of the brain that is of sudden onset and causes abrupt muscular weakness, usually to one side of the body

Causes and Symptoms

The cerebral cortex acts as a processor for sensory information and as an integrator of memory, interpretation, creativity, intellect, and passion. Disorders of the brain or brain defects can disrupt these processing or integrating functions. Disorders of the brain include such commonly heard terms as stroke, ischemia, dementia, seizure, and coma. Brain disorders may also occur as a result of infection, various tumors, traumas leading to blot clots (hematomas) or lack of oxygen (hypoxia), and cancer. Brain defects include anencephaly, a congenital defect in which a newborn lacks a brain, and hydrocephaly, commonly called "water on the brain."

A stroke is any situation in which the blood supply to a region of the brain is lost. This can occur as a result of a cerebral hemorrhage, during which blood escapes from blood vessels to surround and compress brain tissue; cerebral thrombosis, whereby a clot attached to the wall of a blood vessel restricts the amount of blood flowing to a particular region; or an embolus, a foreign substance which may be a clot that migrates in the bloodstream, often to lodge in a smaller vessel in the brain. The embolus will block blood flow to some area. An embolus can originate from substances other than a blood clot, which is why health care staff often squirt

fluid out of a needle before administering a shot or other therapy: to ensure that no air embolus, which could induce a stroke or prove fatal if it enters the brain, is injected.

Transient ischemic attacks (TIAs) are often thought of as small strokes, but, technically, ischemia simply means that oxygen is not reaching the cells within a tissue. Basically, the mechanism is similar to a stroke, in that blood flow to a portion of the brain is compromised. Although blood actually reaches the brain tissue during ischemia, there is not a sufficient flow to ensure that all cells are receiving the oxygen necessary to continue cellular life. This condition is called hypoxia (low oxygen). If hypoxia is sustained over a sufficient period of time, cellular death occurs, causing irreversible brain damage.

The important differences between a stroke and a TIA are the onset and duration of symptoms, as well as the severity of the damage. Persons with atherosclerosis actually have fat deposits along the interior walls of their blood vessels. These people are vulnerable to experiencing multiple TIAs. Many TIAs are small enough to be dismissed and ignored; others are truly inapparent, causing no symptoms. This is unfortunate because TIAs often serve as a warning of an impending full-scale stroke. Action and treatments could be implemented, if medical advice is sought early, to decrease the likelihood of a stroke. Repeated TIAs also contribute to dementia.

Dementia is not the normal path for the elderly, nor is it a sign of aging. Dementia is a sign of neurological chaos and can be caused by diseases such as Alzheimer's disease or acquired immunodeficiency syndrome (AIDS). Although most elderly are not afflicted with dementia, nearly all have a slowing of reaction and response time. This slowing is believed to be associated with chemical changes within nerve cell membranes as aging occurs; slowing of reaction times is not necessarily indicative of the first steps on a path to dementia. In addition, forgetfulness may not be a sign of dementia, since it occurs at all ages. Forgetfulness is such a sign, however, if it is progressive and includes forgetting to dress or forgetting one's name or date of birth.

While it is incorrect to say that dementia is caused by aging, it is correct to say that dementia is age-related. It may first appear in a person any time between the late thirties and the mid-nineties, but it usually begins to appear in the late seventies. Patients with Alzheimer's disease are believed to account for about 20 percent of all cases of dementia. Other diseases cause dementia, including an autosomal-dominant genetic disease called Huntington's disease. Huntington's disease manifests itself with a distinct chorea, or dance, of the body that is neither solicited nor controlled. This genetic disease is particularly cruel in that its symptoms appear in midlife, often after the patient has had offspring and passed on the gene. The disease continues to alter the intellect and personality of the afflicted and progresses to the point of complete debilitation of the body and mind.

A seizure occurs when a collection of neurons misfires, sending nerve impulses that are neither solicited nor controllable. In the everyday use of the term, seizure describes a condition of epilepsy or convulsion. Medically speaking, a seizure is a sign of an underlying problem within the gray matter of the brain; it is the most

common neurological disorder. Epilepsy is a term used to describe a condition of repeated seizures, while convulsion is a term generally applied to describe an isolated seizure. A seizure may occur as a consequence of extreme fever or a violent blow to the head. Seizures are also associated with metabolic disorders, such as hypoglycemia (low blood sugar); trauma causing a loss of blood or oxygen to a region, such as in a newborn after a traumatic birth; toxins, as seen in drug abuse or withdrawal; or bacterial or viral encephalitis or meningitis. In addition, about one-third of those persons who survive a gunshot wound to the head will experience seizures afterward. In closed head trauma, which can occur in a sporting or automobile accident, there is a 5 percent chance of post-trauma seizures.

Loss of consciousness can be caused by a violent impact to the head, a lack of oxygen or blood flow to the head, a metabolic imbalance, or the presence of a toxin such as alcohol. Usually, this is a transient event, but it may become a permanent condition. When this happens, a person is said to be in a coma. A comatose person exists in a nonresponsive state and may be assessed for brain death. Brain death is a legally defined term which means that no electrical activity in the brain is seen on an electroencephalogram (EEG). Thus some comatose patients may be determined to be brain-dead, particularly if the condition is deemed irreversible.

Brain defects are not common, but they do occur. One particularly tragic defect is the absence of a brain in a newborn, called anencephaly. Death usually occurs within a few hours of birth. Although anencephaly is rare and generally associated with a genetic factor, there have been cases in population clusters, such as one in the Rio Grande area of south Texas, suggesting that an environmental factor may contribute to these defects.

Another defect that may appear in newborns or in an infant's first months of life is hydrocephalus. Although the descriptive term "water on the brain" is often used, the condition does not involve a collection of water in the cranium; rather, it involves an accumulation of cerebrospinal fluid (CSF). CSF is the fluid that insulates the brain and allows it to "float" under the bony cranial encasement. As the ventricles, or spaces, in the brain fill with CSF, bulging occurs and pressure builds to the point of compressing the surrounding brain tissue. This can be very painful and is fatal if untreated. Hydrocephalus can be caused by an overproduction of CSF or a blockage of the CSF drainage from the ventricles of the brain. The symptoms often include a protrusion or abnormal shape of the cranium. In newborns, the skull bones have not yet sutured (fused) to one another, so the soft bones are pushed apart, causing unusual head shapes. This is a warning sign. Another sign is observed if a newborn's head has a circumference greater than 35.5 centimeters (14 inches); if that is the case, the newborn must be immediately checked for hydrocephalus. Adolescents and adults may also experience hydrocephalus. This can be a response to head trauma, infection, or the overproduction of CSF. The symptoms include lethargy, headache, dullness, blurred vision, nausea, and vomiting.

Treatment and Therapy

TIAs can progress to strokes. In fact, about 30 percent of those diagnosed with TIA will have a major stroke within the subsequent four years. One of the most prevalent causes of TIAs is hypertension. Hypertension is known as the "silent killer" because many persons with this problem ignore the subtle symptoms of fatigue, headache, and general malaise. Hypertension is also known as a good predictor of major strokes if left untreated. Thus, hypertensive persons need to be diagnosed as such in order to control their blood pressure. This allows them to avoid or delay either a major stroke or multiple TIAs. Management for the hypertensive's blood pressure may include taking diuretics and hypotensive drugs (to lower the blood pressure). If taken diligently, these drugs offer longevity and quality of life to the sufferer. Aside from hypertension, TIAs may be induced in some metabolic disorders, which should be corrected if possible, or by constricted blood vessels. Sometimes, surgery on such vessels can stop the ischemic attacks and prevent or delay the onset of a stroke.

Although TIAs lead to strokes, strokes are not necessarily preceded by a TIA. Nearly 90 percent of all major strokes occur without a TIA warning. Sadly, hypertension is the main contributor to this number. Measures can be taken to avoid strokes. This includes maintaining cardiovascular health by exercising, not smoking, and managing hypertension, diabetes mellitus, or other problems that may place stresses on the body's chemical balance.

Dementia is so poorly understood in terms of causes that a rational probe of drug therapy or a cure is nearly impossible. The drugs most often used in dementia treatment, the ergoloid mesylates, are used to manage the symptoms; namely, the confused mind. These drugs, however, do not stop or prevent the unexplained cellular degeneration associated with dementia. It is interesting to note that a tiny subgroup within those persons suffering from Alzheimer's disease have greatly improved in mental status with the drug tacrine. It is unfortunate that all patients are not responsive to this drug—a fact which suggests that Alzheimer's disease is a complex condition.

Seizures are treated pharmacologically according to type. Carbamazepine, phenobarbitol, phenytoin, and valproate are some of the drugs available to treat seizure disorders. Barbiturates may also be used in certain cases. Most of these drugs are highly effective when taken as prescribed, and patient noncompliance is the main cause of drug failure. Sometimes, two drugs are combined in therapy. It should be mentioned that pregnant women with epilepsy are urged to continue taking antiepilepsy drugs during pregnancy, since a maternal seizure may be more damaging to the fetus than the drug itself.

Some forms of hydrocephalus can be corrected surgically by performing a CSF shunt from the cranium to the peritoneal (abdominal) region, where the fluid can be eliminated from the body as waste. This is not without risk, and the introduction of infection into the brain is a major concern.

Perspective and Prospects

The therapies in use for brain diseases and disorders have been derived from the practical experience of physicians, the laboratory research of scientists, and the

hopes of multitudes of doctors, patients, families, and friends. Advances in medical science have done much to improve the lives of those who suffer with seizures, to reduce the risk of strokes to the hypertensive person and those with TIAs, and is making great progress in treating certain kinds of dementia. Yet much remains to be done.

While one can argue that much is known about the human brain, it would be erroneous to argue that the human brain is fully understood. Despite centuries of research, the brain, as it functions in health, remains largely a mystery. Since the healthy brain is yet to be understood, it is not surprising that the medical community struggles to determine what goes wrong in dementia, seizure, or mental illness or to discover drug therapies that can cross the blood-brain barrier. Thus, the human brain is the uncharted frontier in medicine. As technology improves to support researchers and medical practitioners in their pursuits of cures and treatments for brain diseases and disorders, one can only remain hopeful for the future ability to restore health to the damaged human brain.

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Mary C. Fields

See also:

Alzheimer's Disease; Amnesia, Fugue, and Multiple Personality; Aphasias; Dementia; Dyslexia; Electroconvulsive Therapy; Learning Disabilities; Memory Loss.

CHILD ABUSE

Type of psychology: Developmental psychology
Fields of study: Adolescence; infancy and childhood

The experience of physical or psychological abuse in childhood can have a profound, long-term, deleterious effect upon a person's social development and emotional well-being. Child abuse places a youngster at increased risk to develop a variety of psychological problems, including low self-esteem, anxiety and depression, behavior disorders, educational difficulties, and distorted relationships with peers and adults.

Principal terms

NEGLECT: the repeated failure to meet minimal standards for satisfying a child's basic needs for food, clothing, shelter, medical care, and safety

PHYSICAL ABUSE: any nonaccidental injury caused by a parent or a person responsible for a child's care, including fractures, burns, bruises, welts, cuts, and internal injuries

PSYCHOLOGICAL ABUSE: acts by which children are rejected, terrorized, corrupted, isolated, ridiculed, or humiliated; parental behavior fails to meet the child's need for nurturance or penalizes the child for normal behavior

SEXUAL ABUSE: any contact between a child and an adult in which the child is being used for the sexual stimulation of the perpetrator or another person; includes exhibitionism, fondling, rape, and sodomy

Overview

It is difficult to imagine anything more frightening to a child than being rejected, threatened, beaten, or molested by an adult who is supposed to be his or her primary source of nurturance and protection. Yet throughout human history, children have been abandoned, incarcerated, battered, mutilated, and even murdered by their caregivers. Although the problem of child maltreatment is an old one, both the systematic study of child abuse and the legally sanctioned mechanisms for child protection are relatively new and have gained their greatest momentum in the last half of the twentieth century.

In the United States, the Federal Child Abuse Prevention and Treatment Act of 1974 broadly defines child abuse as

> the physical or mental injury, sexual abuse or exploitation, negligent treatment, or maltreatment of a child under the age of eighteen . . . by a person who is responsible for that child's welfare under circumstances which indicate that the child's health or welfare is harmed or threatened thereby.

When applied by legal and mental health professionals in real-world situations, however, the definition of abuse may vary according to the developmental age of the child victim, the frequency or intensity of the behaviors regarded as abusive,

the degree of intentionality, and a consideration of extenuating circumstances. In general, however, child abuse includes any act or omission on the part of a parental figure that damages a child's physical or psychological well-being or development that is nonaccidental or the result of a habitual behavioral pattern. A broad spectrum of behaviors are considered to be abusive, ranging from the more easily recognizable physical abuse to the more subtle forms of maltreatment including neglect, sexual abuse, and emotional abuse.

Estimates of the extent of child abuse in the United States have ranged from two hundred thousand to four million cases per year. The most widely accepted incidence figure comes from the National Committee for the Prevention of Child Abuse, which estimates that more than a million children are "severely abused" each year, including more than two thousand abuse-related deaths annually. It is important, when considering the actual magnitude of the problem of child maltreatment, to remember that the estimates given most likely underestimate the true incidence of child abuse, both because of the large number of cases that go unreported and because of the lack of agreement as to precisely which behaviors constitute "abuse" or "neglect." In addition, abusive treatment of children is rarely limited to a single episode, and it frequently occurs within the context of other forms of family violence.

Certain forms of maltreatment seem to appear with greater regularity within certain age groups. Neglect is most often reported for infants and toddlers, with incidence declining with age. Reports of sexual abuse and emotional maltreatment are most common among older school-aged children and adolescents. Physical abuse seems to be reported equally among all age groups; however, children less than five years old and adolescents have the highest rates of actual physical injury.

Although research studies generally conclude that there is no "typical" child abuse case consisting of a typical abused child and a typical abusive parent or family type, there are certain characteristics that occur with greater regularity than others. For example, there is considerable evidence that premature infants, low-birth-weight infants, and children with problems such as hyperactivity, physical handicaps, and mental retardation are at particularly high risk for being abused by their caregivers. Physical abuse and neglect are reported with approximately equal frequency for girls and boys, while sexual abuse against girls is reported four times more frequently than is sexual abuse against boys.

Contrary to the once-held stereotype of abusive parents, only a small proportion (5 to 10 percent) of abusive parents suffer from a severe psychiatric disorder. While female caregivers are the perpetrators in approximately 60 percent of all reported cases of child maltreatment, male caregivers are more likely to inflict actual physical injury, and they are the primary perpetrators in cases of sexual abuse of both male and female children. Although no one abusive personality type has been identified, research has revealed a number of areas of psychological functioning in which abusive parents often differ from nonabusive parents. Abusive parents tend to exhibit low frustration tolerance and express negative emotions (for example, anger or disappointment) inappropriately. They are more socially isolated than are nonabusive parents. Abusive parents also tend to have unrealistic expectations of

their children, to misinterpret their children's motivations for misbehaving, to utilize inconsistent and inflexible parenting skills, and to view themselves as inadequate or incompetent as parents.

Research also indicates that marital conflict, unemployment, large and closely spaced families, overcrowded living conditions, and extreme household disorientation are common in abusive homes. Statistics regarding race, education level, and socioeconomic status of abusive families are somewhat controversial in that there exists the possibility of an underreporting bias favoring the white, middle- to upper-class family; however, like several other negative outcomes in childhood (for example, underachievement, criminality, teen pregnancy), child abuse is associated with poverty, underemployment, insufficient education, and the increased experience of unmanageable stress and social isolation that coexists with these sociodemographic variables.

Applications

Abused children are believed to be at much greater risk of developing some form of pathology in childhood or in later life. When considered as a group and compared with nonabused youngsters, abused children exhibit a variety of psychological difficulties and behavioral problems. Yet there is no single emotional or behavioral reaction that is consistently found in all abused children. It is important, when investigating the impact of child abuse, to view the abuse within a developmental perspective. Given a child's different developmental needs and capabilities over the course of his or her development, one might expect that both the psychological experience and the impact of the abuse would be quite different for an infant than if the same maltreatment involved an eight-year-old child or an adolescent. One should also note that the abuse occurs within a particular psychological context, and that the experience of the abuse per se may not be the singular, most powerful predictor of the psychological difficulties found in abused children. Rather, the child's daily exposure to other, more pervasive aspects of the psychological environment associated with an abusive family situation (for example, general environmental deprivation, impoverished parent-child interactions, or chronic family disruption and disorganization) may prove to be more psychologically damaging. Finally, it is important not to view the range of symptoms associated with abused children solely as deficits or pathology. These "symptoms" represent an abused child's best attempt at coping with an extremely stressful family environment given the limited psychological resources and skills he or she has available at that particular time in his or her development.

From the home environment, and from parents in particular, children learn their earliest and perhaps most influential lessons about how to evaluate themselves as valuable, lovable, and competent human beings. They learn about controlling their own actions and about successfully mastering their environment. They learn something about the goodness of their world and how to relate to the people in it. Growing up in an abusive home distorts these early lessons, often resulting in serious interference with the most important dimensions of a child's development: the development of a healthy sense of self, the development of self-control and a

sense of mastery, the capacity to form satisfying relationships, and the ability to utilize one's cognitive capacities to solve problems.

In general, research has shown that abused children often suffer from low self-esteem, poor impulse control, aggressive and antisocial behaviors, fearfulness and anxiety, depression, poor relationships with peers and adults, difficulties with school adjustment, delays in cognitive development, lowered academic achievement, and deficits in social and moral judgment. The way in which these difficulties are expressed will vary according to a child's stage of development.

In infancy, the earliest sign of abuse or neglect is an infant's failure to thrive. These infants show growth retardation (weight loss can be so severe as to be life-threatening) with no obvious physical explanation. To the observer, these infants appear to have "given up" on interacting with the outside world. They become passive, socially apathetic, and exhibit little smiling, vocalization, and curiosity. Other abused infants appear to be quite irritable, exhibiting frequent crying, feeding difficulties, and irregular sleep patterns. In either case, the resulting parent-child attachment bond is often inadequate and mutually unsatisfying.

Abused toddlers and preschoolers seem to lack the infectious love of life, fantasy, and play that is characteristic of that stage of development. They are typically anxious, fearful, and hypervigilant. Their emotions are blunted, lacking the range, the spontaneity, and the vivacity typical of a child that age. Abused toddlers' and preschoolers' ability to play, particularly their ability to engage in imaginative play, may be impaired; it is either deficient or preoccupied with themes of aggression. Abused children at this age can either be passive and overcompliant or oppositional, aggressive, and hyperactive.

School-aged children and adolescents exhibit the more recognizable signs of low self-esteem and depression in the form of a self-deprecating attitude and self-destructive behaviors. They are lonely, withdrawn, and joyless. Behaviorally, some act in a compulsive, overcompliant, or pseudomature manner, while others are overly impulsive, oppositional, and aggressive. Problems with school adjustment and achievement are common. With the school-aged child's increased exposure to the larger social environment, deficits in social competence and interpersonal relationships become more apparent. Progressing through adolescence, the manifestations of low self-esteem, depression, and aggressive, acting-out behaviors may become more pronounced in the form of suicide attempts, delinquency, running away, promiscuity, and drug use.

These distortions in self-esteem, impulse control, and interpersonal relationships often persist into adulthood. There has been much concern expressed regarding the possibility of an intergenerational transmission of abuse—of the experience of abuse as a child predisposing a person to becoming an abusive parent. Research indicates that abused children are six times more likely to abuse their own children than the general population.

Perspective and Prospects

Child maltreatment is a complex phenomenon that does not have a simple, discrete cause, nor does it affect each victim in a predictable or consistent manner. Since

the "battered child syndrome" gained national attention in the early 1960's, theories attempting to explain child maltreatment have evolved from the simplistic psychiatric model focusing on the abuser as a "bad" parent suffering from some form of mental illness to a view of child abuse as a multidetermined problem, with anyone from any walk of life a potential abuser.

Perhaps the most comprehensive and widely accepted explanation of child abuse is the ecological model. This model views abuse as the final product of a set of interacting factors including child-mediated stressors (for example, temperamental difficulties, or a mental or physical handicap), parental predispositions (for example, history of abuse as a child, emotional immaturity), and situational stresses (for example, marital conflict, insufficient social support, or financial stress) occurring within a cultural context that inadvertently supports the mistreatment of children by its acceptance of corporal punishment and tolerance for violence, and its reluctance to interfere with family autonomy. Utilizing this ecological framework, one can imagine how an abusive situation can develop when, for example, an irritable, emotionally unresponsive infant is cared for by an inexperienced, socially isolated mother in a conflict-filled and financially strained household embedded within a larger cultural context in which the rights and privileges of childhood do not necessarily include freedom from violence.

Knowledge regarding the impact of child abuse has also changed over the years, from a view of maltreated children as almost doomed to develop some form of psychopathology to an acknowledgment that child abuse, like other major childhood stressors, can result in a broad spectrum of adaptive consequences, ranging from psychological health to severe psychiatric disorder. Some children actually do well in their development despite their experience with extreme stress and adversity. For example, while adults who were abused as children are more likely than nonabused individuals to become child abusers, nearly two-thirds of all abused children do not become abusive parents. The important questions to be answered are why and how this is so. Research on "stress-resistant" individuals such as these nonabusers has shifted the focus away from pathology to the identification of factors within the individual (for example, coping strategies) and within the environment (for example, social support) that appear to serve a protective function.

Finally, while the treatment of abused children and their abusive caregivers remains an important goal in the mental health field, a focus on the prevention of child abuse has also gained momentum. Many abused children and their families can be helped with proper treatment; however, the existing need for services far exceeds the mental health resources available. An increased understanding of the factors that protect families against engaging in abusive behaviors has resulted in the creation of successful preventive interventions. These prevention programs seek to reduce the incidence of new cases of child abuse by encouraging the development and strengthening of competencies, resources, and coping strategies that promote psychological well-being and positive development in parents, children, and families.

The problem of child abuse does not occur in isolation. It coexists with other

abhorrent problems facing American children such as poverty, lack of guaranteed adequate medical care, insufficient quality day care, and unequal educational resources. Child abuse, like these other problems, can be prevented and eradicated. People have come a long way in terms of their understanding of child maltreatment; yet until the needs of children truly become a national priority, child abuse will continue, brutally and unnecessarily, to rob children of their childhood.

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Judith Primavera

See also:

Aggression: Definitions and Theoretical Explanations; Aggression: Reduction and Control; Alcoholism; Antisocial Personality; Behavioral Family Therapy; Divorce and Separation: Children's Issues; Domestic Violence; Juvenile Delinquency; Substance Abuse.

Child and Adolescent Psychiatry

Type of psychology: Developmental psychology; psychotherapy
Fields of study: Adolescence; childhood and adolescent disorders; infancy and childhood

This branch of psychiatry is concerned with the mental and emotional health and development of infants and teenagers.

Principal terms

DEVELOPMENT: the process of progressive change that takes place as one matures from birth to death; development can be gradual, as on a continuum, or ordered, as in distinctly different stages

DISORDER: a persistent or repetitive maladaptive pattern in thinking, behaving, or feeling that necessitates treatment

MENTAL RETARDATION: a condition characterized by a below-average intelligence quotient (IQ) and deficits in adaptive functioning before the age of eighteen years; the degree of retardation ranges from mild to severe

NORMAL: a term of reference that can mean average (as in statistically normal), functional (as in adaptive), or socially appropriate (as in within cultural bounds of acceptability)

Overview

Specialists in child and adolescent psychiatry are responsible for the physical and mental health of the individuals whom they treat. They must be acute observers of individual and family behavior, as well as knowledgeable about how certain nutritional, physical, and situational conditions can present themselves as mental or emotional problems. Particularly with infants, this requires keen knowledge of normal and abnormal development, both mental and physical. Additionally, these specialists must be able to consult with a variety of medical and other professionals—from psychologists, who provide behavioral and diagnostic assessments, to social work professionals and lawyers, when child abuse or neglect enters into the clinical picture.

Practitioners in child or adolescent psychiatry receive extensive training. First, they must complete medical school in order to obtain a doctorate in medicine. Next, they must complete a four-year residency in psychiatry and a two-year specialty residency in child psychiatry. Finally, they must go through licensing and certification procedures in order to practice independently.

This training prepares them to diagnose and treat the wide variety of psychiatric disorders experienced by children and adolescents. Anxiety, attention-deficit/hyperactivity, autistic, conduct, learning, mental retardation, mood, oppositional-defiant, pervasive developmental, and substance abuse disorders are some of the

most well researched disorders in children. Other problems include asthma, bed-wetting or bed-soiling, child abuse and neglect, conflicts related to sexuality, eating disorders, elective mutism, epilepsy, fire-setting and vandalism, identity disorders, personality disorders, school difficulties, schizoid disorders, sleepwalking, sleep terror, stuttering, and tantrums. Disorders such as these are described in detail in the American Psychiatric Association's *Diagnostic and Statistical Manual of Mental Disorders* (4th ed., 1994, DSM-IV).

Applications

Practitioners of child and adolescent psychiatry are generally introduced to their patients via the parents or an intervening medical professional or agency. In most cases, these specialists diagnose disorders through clinical interviews with the patient, the patient's parents, and sometimes even schoolteachers or other observers of relevant problems. Additionally, diagnoses are sometimes confirmed via a patient's response to drugs (such as Ritalin, antidepressants, or lithium carbonate) or via test results from a psychological or behavioral assessment. Some assessments are based on structured, pencil-and-paper tests that measure intelligence or other personal attributes. Others are based on direct observations of the patient and/or family interactions.

Once a diagnosis is made, practitioners provide therapy to the individual child or adolescent and/or to the entire family. Acute or severe problems might be treated in a hospital setting, while chronic or mild problems might be treated on an outpatient basis. Therapies typically selected include medicinal and psychotropic drugs, dietary recommendations, behavioral therapies and parent training, family therapy, play therapy, and individual psychotherapy. In these situations, a good practitioner will try to involve the child in the process of consent to treatment so as to facilitate trust and gain compliance from the child.

Finally, practitioners in this specialty area perform two other important functions. First, in some cases, no disorder is present, and the psychiatrist provides normative information about child and adolescent growth and development. Second, these professionals must provide protection to suspected victims of abuse or neglect. In such cases, the psychiatrist must report these suspicions to the appropriate authorities, initiate referral to social service agencies, and protect the children or adolescents as necessary.

Perspective and Prospects

Work by Sigmund Freud, the Austrian physician and founder of psychoanalysis, marked the birth of this field of study. By focusing his work on the relationship between childhood experiences and adult functioning, Freud was able to foster interest in child development and welfare. Issues such as family relationships; the emotional, physical, and sexual mistreatment of children; and differences in the way that children and adults perceive and experience the world became highlighted through his work and that of those who followed. Finally, in 1959, child psychiatry became a specialty certified by the American Board of Psychiatry and Neurology, adding credibility and importance to this growing field of practice and research.

Today, child and adolescent psychiatry remains in its infancy compared with other specialties. Relationships between childhood and adult disorders continue to be explored through a variety of epidemiological, genetic, psychiatric, and behavioral studies. Prime topics include connections among attention-deficit/hyperactivity, mood, learning, and a broad spectrum of developmental disorders. Similarly, interest in understanding how trauma, neglect, and family influences relate to childhood mood, learning, and substance abuse disorders is also increasing.

Innovative drug and psychotherapeutic strategies are being explored for the disorders described above. The greatest treatment advances should be expected in the development and application of new drug therapies for childhood and adolescent psychiatric disorders. Further, refinement of behavioral assessment and management strategies for both school and home environments are likely to contribute greatly to this progress. Finally, because this specialty faces growing challenges posed by long-term childhood medical disorders, such as cancer, it is likely that interventions will be improved specifically to meet these needs.

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Nancy A. Piotrowski

See also:

Addictive Personality and Behaviors; Alcoholism; Anorexia Nervosa and Bulimia Nervosa; Anxiety Disorders; Attention-Deficit Disorder; Autism; Bed-Wetting; Behavioral Family Therapy; Brain Disorders; Child Abuse; Depression; Divorce and Separation: Children's Issues; Domestic Violence; Eating Disorders; Identity Crises; Mental Retardation; Obsessive-Compulsive Disorder; Paranoia; Phobias; Play Therapy; Psychosomatic Disorders; Psychotherapy: Children; Schizophrenia: High-Risk Children; Sleep Apnea Syndromes and Narcolepsy; Strategic Family Therapy; Stress; Teenage Suicide.

CODEPENDENT PERSONALITY

Type of psychology: Psychopathology
Fields of study: Personality theory; substance abuse

The codependent personality is characterized by a lack of a stable self-concept, which manifests itself in a troubled perception of self and disturbed relationships with others. By compulsively taking care of others and denying their own needs, often to the point of serious self-neglect, codependents seek an identity through achieving a favorable image in the eyes of others.

Principal terms

ADDICTION: a progressive, out-of-control pursuit of a substance, object, or relationship that results in life-damaging consequences for the addicted person

COMPULSION: a behavior or thought pattern in which the individual feels driven to engage, normally to ward off anxiety or other uncomfortable feelings

IDENTITY DEVELOPMENT: the process of forming a separate self with distinct thoughts, needs, and feelings that differentiate the self from others

SELF-CONCEPT: the individual's thoughts about the value of the self, particularly in relationship to others; it influences self-esteem, or feelings about the self

SYSTEMS THEORY: the interconnection of individuals in family, work, and community systems so that change in one member in the system necesarily produces change in the other members as well

Overview

At the foundation of the codependent personality is a pervasive lack of identity development. Codependents look to others for thoughts, feelings, and values that would normally come out of a well-developed sense of self. For example, when asked to offer an opinion on the death penalty, a typical codependent reaction would be to wait for the group consensus and offer a "safe" response—one that would be most in keeping with the thoughts of the group. This is often done subconsciously and is in contrast with the healthy reaction of offering an honest personal viewpoint.

In truth, codependents do not withhold their feelings as much as they are unaware of what they feel, because of their incomplete development of a separate self: They cannot reveal what they literally do not know. Since their self-perceptions are composites of the reflections they have received from others, how they present themselves will vary, often markedly, depending on who is with them. Codependents have difficulty recognizing and articulating feelings, and they often hold back their feelings out of fear. Though they may not be aware of their feelings, their feelings do, nevertheless, influence them. Their needs remain unmet in their desire to please others, or at the very least to avoid disapproval. As a result, they

accumulate anger and rage for which they have no healthy outlet. Depression is also common, particularly a low-grade, chronic depression that would be relieved if they could focus on their own needs.

Codependents have high, and often unrealistic, expectations for themselves, and they tend to be perfectionists. An exaggerated fear of failure drives them, as does a barely conscious sense of being defective or somehow incomplete as a person. As the result of this poor evaluation of themselves, codependents fear getting close to others because others may judge them as harshly as they judge themselves. To guard against being "found out," they keep emotionally distant, although their behaviors may appear to others as genuinely warm and intimate. In truth, their real selves are closely guarded and available to no one—including themselves.

They often channel this backlog of unmet emotional needs into addictive or compulsive behaviors. When the pressure builds, codependents may seek diversion in shopping, gambling, work, chemicals, overeating, or other addictions. Instead of experiencing the emotional development that occurs from facing and overcoming interpersonal problems, codependents retreat further from their feelings through the quick "fix" of indulging in addictive behaviors. The effect of their inattention to their needs is cumulative and progressive and interferes with interpersonal relationships. Codependents take care of others, both emotionally and physically, to feel needed as caretakers. Their focus is primarily external, so they pay close attention to how others are feeling and behaving, then adjust how they act to receive the approval they crave.

Since codependents cannot be sure they are interpreting others' wants and needs correctly, their efforts to achieve approval are often unsuccessful. They have unrealistic perceptions of their abilities to control the environment, and when faced with normal limitations, they may frantically increase their efforts in the aim for perfection. As with all their efforts, the goal is self-esteem through external approval. Even when the approval is forthcoming, ironically, the satisfaction is small, because the approval is for a false representation of self. This leaves them

Possible Characteristics of Codependent People

- an exaggerated sense of responsibility for the actions of others
- a tendency to confuse love and pity, with the tendency to "love" people they can pity and rescue
- a tendency to do more than their share, all the time
- a tendency to become hurt when people do not recognize their efforts
- an unhealthy dependence on relationships; the codependent will do anything to hold on to a relationship to avoid the feeling of abandonment
- an extreme need for approval and recognition
- a sense of guilt when asserting themselves
- a compelling need to control others
- lack of trust in self and/or others
- fear of being abandoned or alone
- difficulty identifying feelings
- rigidity/difficulty adjusting to change
- problems with intimacy/boundaries
- chronic anger
- lying/dishonesty
- poor communication
- difficulty making decisions

feeling that if others really knew them, they would not be accepted. Codependents typically channel this feeling, as they do most other feelings, into more controlling and caretaking behaviors in an attempt to bolster self-esteem.

Because codependents have not developed clear identities, the interdependence between two persons that is characteristic of healthy relationships is not possible. Getting close brings fears of losing what little identity they have. Typically codependents move closer to others to achieve intimacy, then retreat when they fear the closeness will overwhelm them. They fear abandonment as well, so when the emotional distance from others seems too great, they move closer to others and again face their fears of intimacy overwhelming them. This dance between intimacy and distance is ultimately not satisfying and leaves the codependent feeling even more alone.

Codependency originates in settings where individuals feel unwilling or unable to display their true identities. Most typically, codependency occurs in addictive family systems where the family members' needs are secondary to the needs of the addicted individual. Family members cope with and adapt to the addiction in an attempt to stabilize the family system. Individual members' needs are not met if they conflict with the central need of keeping the family in balance and denying the effects of the addiction. Children in these family systems fail to develop separate identities because so much of their energy goes to controlling the environment. The adults in the family also may have failed to develop identities as children, or they may have abandoned their identities as adults under the pressure of keeping the family stable. In other words, codependency can be the result of the failure of normal identity development or of the abandonment of an already developed identity under the pressure of a dysfunctional family system.

Applications

A look at identity development in a healthy family system provides a clear picture of codependency. Theorist Erik Erikson proposed in 1963 that identity formation occurs through the resolution of crises throughout the life cycle. According to Erikson, as the individual masters the tasks of the various stages of development, he or she moves on to the next stage. Failure to work through the tasks of any stage results in incomplete development for the person. In a healthy family that meets a child's basic needs, he or she receives support and guidance to pass through the early stages of identity formation, as outlined by Erikson.

Stage one, trust versus mistrust, occurs from birth through the age of eighteen months; the second stage, autonomy versus shame and doubt, occurs between eighteen months and three years. Stage three, initiative versus guilt, lasts from the age of three to the age of six. Industry versus inferiority, the fourth stage, lasts from the age of six to age eighteen. The emerging identity is built upon the basic sense of trust the child develops in the early years of life. If experience teaches the child that others are not trustworthy, then the child's sense of self will be weak. Therefore, efforts to move through the later developmental stages will be hampered. In short, trust is essential to all the later developmental work.

In a family in which trust is not easily developed, such as in an addictive family

system, the children direct most of their energy toward achieving a feeling of relative safety. The children learn to look to others to provide the sense of safety they could not develop internally. As they take care of other family members' needs, the family system remains stable, which provides a type of security, though the children's individual needs are not recognized and met. This external focus is adaptive in the short term, as the children are meeting some of their safety and security needs, but ultimately, mature identity development is thwarted. The more stable and emotionally healthy the parents are, the more likely it is that the child will move successfully through the later developmental stages. With the mastery of the developmental tasks, the child begins to feel like a competent individual in a stable and predictable environment. This emerging identity then forms the core of the self as a distinct individual.

Claudia Black (1981) identified roles that children adopt in alcoholic families in order to get some of their needs met. These roles have been found to be applicable to other dysfunctional family systems as well. The "responsible one," who is often the oldest child, functions as an adult by taking care of many basic needs of the family members, sometimes including the parents. The "adjuster" adapts to whatever the family system needs and avoids calling attention to himself or herself. The "placater" brings comfort and diversion to the family and takes on the responsibility for the family members' emotional stability. A final role is the "acting-out child," who keeps the family focused on his or her problem behaviors and receives punishment, criticism, and predominantly negative attention.

These roles can overlap so that the "responsible one" may alternate his or her overly mature behaviors with periods of acting out that direct the family's attention to the current problem and away from the fact that the whole family system is in trouble. The family can then console itself that without "the problem," it would be fine. The "placater" also might shift roles and take care of physical needs and responsibilities that would be more appropriately handled by the adults in the family. The "acting-out child" does not always act out; she or he can stop delinquent behaviors if they are not needed. The important issue for the development of codependency is not that children put the needs of the family ahead of their own but that they fill these roles to achieve safety emotionally and physically and fail to develop their own individual thoughts, needs, and feelings. Their development gets lost in their efforts to maintain the family balance.

This ability of codependents to adopt roles and cope despite how they feel is a major strength in certain settings, such as in an alcoholic or other unpredictable family setting. The adapting and responding to others becomes a problem when it is not a choice but is the only way that the codependent knows how to react. As adults, their behavioral repertoire is limited, as their response to demands is to adapt and take care of what everyone else needs first.

The picture is not as bleak as it may seem. Basic personality traits for such occupations as teaching, nursing, and counseling include empathy and the ability to "read" others, which are typically highly developed skills for codependents. On the whole, codependents are resourceful people who learned to survive in difficult circumstances by being acutely aware of the needs and viewpoints of others. The

focus of treatment for these individuals is not to reconstruct their personalities but to help them expand their range of behavioral and emotional options.

Perspective and Prospects

The term "codependency" originated in the 1970's in the alcohol-treatment field to describe individuals whose lives had become unmanageable because of their relationships with alcoholics. Prior to that time the term used was "co-alcoholic" or "para-alcoholic," which described a cluster of symptoms that the family members of the alcoholic displayed that included depression, anxiety, and interpersonal difficulties. The introduction of the term "codependency" helped to define the cluster of symptoms more clearly so that codependency became a legitimate focus for treatment. Families began receiving treatment targeted at their needs, at times completely independent of the alcoholic's treatment. Research showed that this focus on the family's need resulted in longer-term sobriety for the alcoholic.

In the 1980's, clinicians became aware that while codependency most obviously arose from alcoholic families or relationships, it also occurred where other addictions or serious dysfunctions were present. Thus, the model for understanding codependency began to be applied by professionals to diverse problems such as eating disorders, gambling, and other addictions. Codependency as an issue began to gain the attention of professionals beyond the addictions field and in other treatment disciplines.

Many traditional clinicians and researchers have been slow to accept codependency as a legitimate treatment issue since the theory has not been grounded in the scholarly research considered necessary for establishing new trends in the field. Clinicians who treat clients for codependency issues maintain, however, that it is not necessary to wait for research to verify what has already been shown to be useful in clinical practice. Their position is that when a treatment modality helps people, it is ethical to continue the treatment concurrently with the research that should ultimately validate their work. Treatment for codependency has been multifaceted and is apparently most effective when it includes some combination of individual or group therapy, self-help groups, workshops, and educational resources. Through the various treatment strategies, codependents begin to recognize the positive aspects of their personalities, such as adaptiveness and the ability to intuit what others need. In time they can learn to extend to themselves the same attention and caretaking they previously gave only to others.

A common fear of codependents is that if they stop being "caretakers" of others they will become uncaring individuals. This fear is usually unfounded, since greater intimacy and depth of emotion are possible in relationships in which individuals give to others by choice rather than through the continuing sacrifice of their own needs. Codependent personalities develop out of dysfunctional family, community, or other systems; when left untreated, this situation results in a continued poor self-concept and in disturbed relationships with others. Treatment has apparently been effective in helping codependents make significant changes. Recognition of codependent traits can therefore be a springboard for personal growth and development rather than a cause for despair.

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See also:

Addictive Personality and Behaviors; Alcoholism; Behavioral Assessment and Personality Rating Scales; Behavioral Family Therapy; Identity Crises; Substance Abuse.

Cognitive Behavior Therapy

Type of psychology: Psychotherapy
Fields of study: Behavioral therapies

A number of approaches to therapy fall within the scope of cognitive behavior therapy. These approaches all share a theoretical perspective that assumes that internal cognitive processes, called thinking or cognition, affect behavior; that this cognitive activity may be monitored; and that desired behavior change may be effected through cognitive change.

Principal terms

BEHAVIOR THERAPY: a branch of psychotherapy narrowly conceived as the application of classical and operant conditioning to the alteration of clinical problems, but more broadly conceived as applied experimental psychology in a clinical context

COGNITION: private or internal processes such as imagery, symbolic representation of external events, and the verbal coding of experience

COGNITIVE RESTRUCTURING: any behavior therapy procedure that attempts to alter the manner in which clients think about life so that they change their overt behavior and emotions

COGNITIVE THERAPY: a therapeutic approach developed by Aaron T. Beck, the goal of which is for patients to discover for themselves the irrationality of their thoughts

DEPRESSION: strong feelings of sadness, dejection, and often apathy that last more than two weeks and pervade a person's thoughts

Overview

The cognitive behavior therapies are not a single therapeutic approach, but rather a loosely organized collection of therapeutic approaches that share a similar set of assumptions. At their core, cognitive behavior therapies share three fundamental propositions: Cognitive activity affects behavior; cognitive activity may be monitored and altered; and desired behavior change may be effected through cognitive change.

The first of the three fundamental propositions of cognitive behavior therapy suggests that it is not the external situation which determines feelings and behavior, but rather the person's view or perception of that external situation that determines feelings and behavior. For example, if one has failed the first examination of a course, one could appraise it as a temporary setback to be overcome or as a horrible loss. While the situation remains the same, the thinking about that situation is radically different in the two examples cited. Each of these views will lead to significantly different emotions and behaviors.

The third cognitive behavioral assumption suggests that desired behavior change may be effected through cognitive change. Thus, while cognitive behavior theorists do not reject the notion that rewards and punishment (reinforcement contingencies) can alter behavior, they are likely to emphasize that there are alternative methods for behavior change, one in particular being cognitive change. Many approaches to therapy fall within the scope of cognitive behavior therapy as it is defined above. While these approaches share the theoretical assumptions described above, a review of the major therapeutic procedures subsumed under the heading of cognitive behavior therapy reveals a diverse amalgam of principles and procedures, representing a variety of theoretical and philosophical perspectives.

Rational-emotive therapy, developed by psychologist Albert Ellis, is regarded by many as one of the premier examples of the cognitive behavioral approach; it was introduced in the early 1960's. Ellis proposed that many people are made unhappy by their faulty, irrational beliefs, which influence the way they interpret events. The therapist will interact with the patient or client, attempting to direct the patient to more positive and realistic views. Cognitive therapy, pioneered by Aaron T. Beck, has been applied to such problems as depression and stress. For stress reduction, ideas and thoughts that are producing stress in the patient will be questioned; the therapist will get the patient to examine the validity of these thoughts; thought processes can then be restructured so the situations seem less stressful. Cognitive therapy has been found to be quite effective in treating depression, as compared with other therapeutic methods. Beck held that depression is caused by certain types of negative thoughts, such as devaluing the self or viewing the future in a consistently pessimistic way.

Rational behavior therapy, developed by psychiatrist Maxie Maultsby, is a close relative of Ellis's rational-emotive therapy. In this approach, Maultsby combines several approaches to include rational-emotive therapy, neuropsychology, classical and operant conditioning, and psychosomatic research; however, Maultsby was primarily influenced by his association with Ellis. In this approach, Maultsby attempts to couch his theory of emotional disturbance in terms of neuropsychophysiology and learning theory. Rational behavior therapy assumes that repeated pairings of a perception with evaluative thoughts lead to rational or irrational emotive and behavioral reactions. Maultsby suggests that self-talk, which originates in the left hemisphere of the brain, triggers corresponding right-hemisphere emotional equivalents. Thus, in order to maintain a state of psychological health, individuals must practice rational self-talk that will, in turn, cause the right brain to convert left-brain language into appropriate emotional and behavioral reactions.

Rational behavior therapy techniques are quite similar to those of rational-emotive therapy. Both therapies stress the importance of monitoring one's thoughts in order to become aware of the elements of the emotional disturbance. In addition, Maultsby advocates the use of rational-emotive imagery, behavioral practice, and relaxation methods in order to minimize emotional distress.

Self-instructional training was developed by psychologist Donald Meichenbaum in the early 1970's. In contrast to Ellis and Beck, whose prior training was in psychoanalysis, Meichenbaum's roots are in behaviorism and the behavioral

therapies. Thus Meichenbaum's approach is heavily couched in behavioral terminology and procedures. Meichenbaum's work stems from his earlier research in training schizophrenic patients to emit "healthy speech." By chance, Meichenbaum observed that patients who engaged in spontaneous self-instruction were less distracted and demonstrated superior task performance on a variety of tasks. As a result, Meichenbaum emphasizes the critical role of "self-instructions"—simple instructions such as, "Relax. . . . Just attend to the task"—and their noticeable effect on subsequent behavior.

Meichenbaum developed self-instructional training to treat the deficits in self-instructions manifested in impulsive children. The ultimate goal of this program was to decrease impulsive behavior. The way to accomplish this goal, as hypothesized by Meichenbaum, was to train impulsive children to generate verbal self-commands, to respond to their verbal self-commands, and to encourage the children to self-reinforce their behavior appropriately.

The specific procedures employed in self-instructional training involve having the child observe a model performing a task. While the model is performing the task, he or she is talking aloud. The child then performs the same task while the model gives verbal instructions. Subsequently, the child performs the task while instructing himself or herself aloud, then while whispering the instructions. Finally, the child performs the task covertly. The self-instructions employed in the program included questions about the nature and demands of the task, answers to these questions in the form of cognitive rehearsal, self-instructions in the form of self-guidance while performing the task, and self-reinforcement. Meichenbaum and his associates have found that this self-instructional training program significantly improves the task performance of impulsive children across a number of measures.

Systematic rational restructuring is a cognitive behavioral procedure developed by psychologist Marvin Goldfried in the mid-1970's. This procedure is a variation on Ellis's rational-emotive therapy; however, it is more clearly structured than Ellis's method. In systematic rational restructuring, Goldfried suggests that early social learning experiences teach individuals to label situations in different ways. Further, Goldfried suggests that emotional reactions may be understood as responses to the way individuals label situations, as opposed to responses to the situations themselves. The goal of systematic rational restructuring is to train clients to perceive situational cues more accurately.

The process of systematic rational restructuring is similar to systematic desensitization, in which a subject is to imagine fearful scenes in a graduated order from the least fear-provoking to the more fear-provoking scenes. In systematic rational restructuring, the client is asked to imagine a hierarchy of anxiety-eliciting situations. At each step, the client is instructed to identify irrational thoughts associated with the specific situation, to dispute them, and to reevaluate the situation more rationally. In addition, clients are instructed to practice rational restructuring in specific real-life situations.

Stress inoculation training incorporates several of the specific therapies already described in this section. This procedure was developed by psychologist Donald

Meichenbaum. Stress inoculation training is analogous to being inoculated against disease. That is, it prepares clients to deal with stress-inducing events by teaching them to use coping skills at low levels of the stressful situation, and then gradually to cope with more and more stressful situations. Stress inoculation training involves three phases: conceptualization, skill acquisition and rehearsal, and application and follow-through.

In the conceptualization phase of stress inoculation training, clients are given an adaptive way of viewing and understanding their negative reactions to stressful events. In the skills-acquisition and rehearsal phase, clients learn coping skills appropriate to the type of stress they are experiencing. With interpersonal anxiety, the client might develop skills that would make the feared situation less threatening (for example, learning to initiate and maintain conversations). The client might also learn deep muscle relaxation to lessen tension. In the case of anger, clients learn to view potential provocations as problems that require a solution rather than as threats that require an attack. Clients are also taught to rehearse alternative strategies for solving the problem at hand.

The application and follow-through phase of stress inoculation training involves the clients practicing and applying the coping skills. Initially, clients are exposed to low levels of stressful situations in imagery. They practice applying their coping skills to handle the stressful events, and they overtly role-play dealing with stressful events. Next, the client is given homework assignments that involve gradual exposure to actual stressful events in his or her everyday life. Stress inoculation training has been effectively applied to many types of problems. It has been used to help people cope with anger, anxiety, fear, pain, and health-related problems (for example, cancer and hypertension). It appears to be suitable for all age levels.

Problem-solving therapy, as developed by psychologists Thomas D'Zurilla and Marvin Goldfried, is also considered one of the cognitive behavioral approaches. In essence, problem-solving therapy is the application of problem-solving theory and research to the domain of personal and emotional problems. Indeed, the authors see the ability to solve problems as the necessary and sufficient condition for emotional and behavioral stability. Problem solving is, in one way or another, a part of all psychotherapies.

Applications

Cognitive behavior therapists have taught general problem-solving skills to clients with two specific aims: to alleviate the particular personal problems for which clients have sought therapy, and to provide clients with a general coping strategy for personal problems.

The actual steps of problem solving that a client is taught to carry out systematically are as follows. First, it is necessary to define the dilemma as a problem to be solved. Next, a goal must be selected which reflects the ultimate outcome the client desires. The client then generates a list of many different possible solutions, without evaluating their potential merit (a kind of brainstorming). Now the client evaluates the pros and cons of each alternative in terms of the probability that it

will meet the goal selected and its practicality, which involves considering the potential consequences to oneself and to others of each solution. The alternative solutions are ranked in terms of desirability and practicality, and the highest one is selected. Next, the client tries to implement the solution chosen. Finally, the client evaluates the therapy, assessing whether the solution alleviated the problem and met the goal, and, if not, what went wrong—in other words, which of the steps in problem solving needs to be redone.

Problem-solving therapies have been used to treat a variety of target behaviors with a wide range of clients. Examples include peer relationship difficulties among children and adolescents, examination and interpersonal anxiety among college students, relapse following a program to reduce smoking, harmony among family members, and the ability of chronic psychiatric patients to cope with interpersonal problems.

Self-control therapy for depression, developed by psychologist Lynn Rehm, is an approach to treating depression which combines the self-regulatory notions of behavior therapy and the cognitive focus of the cognitive behavioral approaches. Essentially, Rehm believes that depressed people show deficits in one or some combination of the following areas: monitoring (selectively attending to negative events), self-evaluation (setting unrealistically high goals), and self-reinforcement (emitting high rates of self-punishment and low rates of self-reward). These three components are further broken down into a total of six functional areas.

According to Rehm, the varied symptom picture in clinically depressed clients is a function of different subsets of these deficits. Over the course of therapy with a client, each of the six self-control deficits is described, with emphasis on how a particular deficit is causally related to depression, and on what can be done to remedy the deficit. A variety of clinical strategies are employed to teach clients self-control skills, including group discussion, overt and covert reinforcement, behavioral assignments, self-monitoring, and modeling.

Structural psychotherapy is a cognitive behavioral approach that derives from the work of two Italian mental health professionals, psychiatrist Vittorio Guidano and psychologist Gianni Liotti. These authors are strongly persuaded by cognitive psychology, social learning theory, evolutionary epistemology, psychodynamic theory, and cognitive therapy. Guidano and Liotti suggest that for an understanding of the full complexity of an emotional disorder and subsequent development of an adequate model of psychotherapy, an appreciation of the development and the active role of an individual's knowledge of self and the world is critical. In short, in order to understand a patient, one must understand the structure of that person's world.

Guidano and Liotti's therapeutic process utilizes the empirical problem-solving approach of the scientist. Indeed, the authors suggest that therapists should assist clients in disengaging themselves from certain ingrained beliefs and judgments, and in considering them as hypotheses and theories subject to disproof, confirmation, and logical challenge. A variety of behavioral experiments and cognitive techniques are utilized to assist the patient in assessing and critically evaluating his or her beliefs.

As can be seen, the area of cognitive behavior therapy involves a wide collection of therapeutic approaches and techniques. The approaches described here are but a representative sample of possible cognitive behavioral approaches. Also included within this domain are anxiety management training, which comes from the work of psychologist Richard Suinn. and personal science, from the work of psychologist Michael Mahoney.

The cognitive behavioral approaches are derived from a variety of perspectives, including cognitive theory, classical and operant conditioning approaches, problem-solving theory, and developmental theory. All these approaches share the perspective that internal cognitive processes, called thinking or cognition, affect behavior, and that behavior change may be effected through cognitive change.

These approaches have several other similarities. One is that all the approaches see therapy as time-limited. This is in sharp distinction to the traditional psychoanalytic therapies, which are generally open-ended. The cognitive behavior therapies attempt to effect change rapidly, often with specific, preset lengths of therapeutic contact. Another similarity among the cognitive behavior therapies is that their target of change is also limited. For example, in the treatment of depression, the target of change is the symptoms of depression. Thus, in the cognitive behavioral approaches to treatment, one sees a time-limited focus and a limited target of change.

Perspective and Prospects

Cognitive behavior therapy evolved from two lines of clinical and research activity: First, it derives from the work of the early cognitive therapists (Albert Ellis and Aaron Beck); second, it was strongly influenced by the careful empirical work of the early behaviorists.

Within the domain of behaviorism, cognitive processes were not always seen as a legitimate focus of attention. That is, in behavior therapy, there has always been a strong commitment to an applied science of clinical treatment. In the behavior therapy of the 1950's and 1960's, this emphasis on scientific methods and procedures meant that behavior therapists focused on events that were directly observable and measurable. Within this framework, behavior was seen as a function of external stimuli which determined or were reliably associated with observable responses. Also during this period, there was a deliberate avoidance of such "nebulous" concepts as thoughts, cognitions, or images. It was believed that these processes were by their very nature vague, and one could never be confident that one was reliably observing or measuring these processes.

It is important to note that by following scientific principles, researchers developed major new treatment approaches which in many ways revolutionized clinical practice (among them are systematic desensitization and the use of a token economy). Yet during the 1960's, several developments within behavior therapy had emphasized the limitations of a strict conditioning model to understanding human behavior.

In 1969, psychologist Albert Bandura published his influential volume *Principles of Behavior Modification*. In this volume, Bandura emphasized the role of

internal or cognitive factors in the causation and maintenance of behavior. Following from the dissatisfaction of the radical behavioral approaches to understanding complex human behavior and the publication of Bandura's 1969 volume, behavior therapists began actively to seek and study the role of cognitive processes in human behavior.

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Donald G. Beal

See also:

Analytical Psychotherapy; Cognitive Therapy; Person-Centered Therapy; Psychotherapy: Goals and Techniques; Psychotherapy: Historical Approaches to Treatment.

Cognitive Therapy

Type of psychology: Psychotherapy
Fields of study: Cognitive therapies

Cognitive therapy holds that emotional disorders are largely determined by cognition or thinking, that cognitive activity can take the form of language or images, and that emotional disorders can be treated by helping patients modify their cognitive distortions. Treatment programs based on this model have been highly successful with depression, panic disorder, generalized anxiety disorder, and other emotional problems.

Principal terms

ARBITRARY INFERENCE: the process of drawing a conclusion from an experience where there is no evidence to support such a conclusion

AUTOMATIC THOUGHTS: thoughts experienced by individuals of which they are dimly aware and that seem believable, but that can be highly unrealistic and maladaptive

COGNITIVE SPECIFICITY HYPOTHESIS: the idea that each of the emotional disorders is characterized by its own patterns of thinking or cognitive distortions

COGNITIVE TRIAD: seen as the core of depression; consists of a negative view of the self, one's experiences, and the future

SCHEMATA: fundamental beliefs people hold about themselves or the world; these beliefs appear to be the rules by which one lives

SELECTIVE ABSTRACTION: focusing on something taken out of context and conceptualizing the experience on the basis of this particular element

Overview

Cognitive therapy, originally developed by Aaron T. Beck, is based on the view that cognition (the process of acquiring knowledge and forming beliefs) is a primary determinant of mood and behavior. Beck developed his theory while treating depressed patients. He noticed that these patients tended to distort whatever happened to them in the direction of self-blame and catastrophes. Thus, an event interpreted by a normal person as irritating and inconvenient (for example, the malfunctioning of an automobile) would be interpreted by the depressed patient as another example of the utter hopelessness of life. Beck's central point is that depressives draw illogical conclusions and come to evaluate negatively themselves, their immediate world, and their future. They see only personal failings, present misfortunes, and overwhelming difficulties ahead. It is from these cognitions that all the other symptoms of depression derive.

It was from Beck's early work with depressed patients that cognitive therapy was developed. Shortly thereafter, the concepts and procedures were applied to other psychological problems, with notable success.

Two concepts of particular relevance to cognitive therapy are the concepts of

automatic thoughts and schemata (schemata is the plural of schema). Automatic thoughts are thoughts that appear to be going on all the time. These thoughts are quite brief—only the essential words in a sentence seem to occur, as in a telegraphic style. Further, they seem to be autonomous, in that the person made no effort to initiate them, and they seem plausible or reasonable to the person (although they may seem far-fetched to somebody else). Thus, as a depressed person is giving a talk to a group of business colleagues, he or she will have a variety of thoughts. There will be thoughts about the content of the material. There is also a second stream of thoughts occurring. In this second channel, the person may experience such thoughts as: "This is a waste of time," or "They think I'm dumb." These are automatic thoughts.

Beck has suggested that although automatic thoughts are occurring all the time, the person is likely to overlook these thoughts when asked what he or she is thinking. Thus, it is necessary to train the person to attend to these automatic thoughts. Beck pointed out that when people are depressed, these automatic thoughts are filled with negative thoughts of the self, the world, and the future. Further, these automatic thoughts are quite distorted, and finally, when these thoughts are carefully examined and modified to be more in keeping with reality, the depression subsides.

The concept of schemata, or core beliefs, becomes critical in understanding why some people are prone to having emotional difficulties and others are not. The schema appears to be the root from which the automatic thoughts derive. Beck suggests that people develop a propensity to think crookedly as a result of early life experiences. He theorizes that in early life, an individual forms concepts—realistic as well as unrealistic—from experiences. Of particular importance are individuals' attitudes toward themselves, their environment, and their future. These deeply held core beliefs about oneself are seen by Beck as critical in the causation of emotional disorders. According to cognitive theory, the reason these early beliefs are so critical is that once they are formed, the person has a tendency to distort or view subsequent experiences to be consistent with these core beliefs. Thus, an individual who, as a child, was subjected to severe, unprovoked punishment from a disturbed parent may conclude "I am weak" or "I am inferior." Once this conclusion has been formulated, it would appear to be strongly reinforced over years and years of experiences at the hands of the parent. Thus, when this individual becomes an adult, he or she tends to interpret even normal frustrations as more proof of the original belief: "See, I really am inferior." Examples of these negative schemata or core beliefs are: "I am weak," "I am inferior," "I am unlovable," and "I cannot do anything right." People holding such core beliefs about themselves would differ strongly in their views of a frustrating experience from those people who hold a core belief such as "I am capable."

Another major contribution of cognitive therapy is Beck's cognitive specificity hypothesis. Specifically, Beck has suggested that each of the emotional disorders is characterized by its own patterns of thinking. In the case of depression, the thought content is concerned with ideas of personal deficiency, impossible environmental demands and obstacles, and nihilistic expectations. For example, a depressed patient might interpret a frustrating situation, such as a malfunctioning

automobile, as evidence of his or her own inadequacy: "If I were really competent, I would have anticipated this problem and been able to avoid it." Additionally, the depressed patient might react to the malfunctioning automobile with: "This is too much, I cannot take it anymore." To the depressed patient, this would simply be another example of the utter hopelessness of life.

While the cognitive content of depression emphasizes the negative view of the self, the world, and the future, anxiety disorders are characterized by fears of physical and psychological danger. The anxious patient's thoughts are filled with themes of danger. These people anticipate detrimental occurrences to themselves, their family, their property, their status, and other intangibles that they value.

In phobias, as in anxiety, there is the cognitive theme of danger; however, the "danger" is confined to definable situations. As long as phobic sufferers are able to avoid these situations, then they do not feel threatened and may be relatively calm. The cognitive content of panic disorder is characterized by a catastrophic interpretation of bodily or mental experiences. Thus, patients with panic disorder are prone to regard any unexplained symptom or sensation as a sign of some impending catastrophe. As a result, their cognitive processing system focuses their attention on bodily or psychological experience. For example, one patient saw discomfort in the chest as evidence of an impending heart attack.

The cognitive feature of the paranoid reaction is the misinterpretation of experience in terms of mistreatment, abuse, or persecution. The cognitive theme of the conversion disorder (a disorder characterized by physical complaints such as paralysis or blindness, where no underlying physical basis can be determined) is the conviction that one has a physical disorder. As a result of this belief, the patient experiences sensory and/or motor abnormalities that are consistent with the patient's faulty conception of organic pathology.

Applications

The goal of cognitive therapy is to assist the patient to evaluate his or her thought processes carefully, to identify cognitive errors, and to substitute more adaptive, realistic cognitions. This goal is accomplished by therapists helping patients to see their thinking about themselves (or their situation) as similar to the activity of a scientist—that they are engaged in the activity of developing hypotheses (or theories) about their world. Like a scientist, the patient needs to "test" his or her theory carefully. Thus, patients who have concluded that they are "worthless" people would be encouraged to test their "theories" rigorously to determine if this is indeed accurate. Further, in the event that the theories are not accurate, patients would be encouraged to change their theories to make them more consistent with reality (what they find in their experience).

A slightly different intervention developed by Beck and his colleagues is to help the patient identify common cognitive distortions. Beck originally identified four cognitive distortions frequently found in emotional disorders: arbitrary inference, selective abstraction, overgeneralization, and magnification or minimization. These were later expanded to ten or more by Beck's colleagues and students.

Arbitrary inference is defined as the process of drawing a conclusion from a

situation, event, or experience when there is no evidence to support the conclusion or when the conclusion is contrary to the evidence. For example, a depressed patient on a shopping trip had the thought, "The salesclerk thinks I am a nobody." The patient then felt sad. On being questioned by the psychologist, the patient realized that there was no factual basis for this thought. Selective abstraction refers to the process of focusing on a detail taken out of context, ignoring other, more salient features of the situation, and conceptualizing the whole experience on the basis of this element. For example, a patient was praised by friends about the patient's child-care activities. Through an oversight, however, the patient failed to have her child vaccinated during the appropriate week. Her immediate thought was, "I am a failure as a mother." This idea became paramount despite all the other evidence of her competence.

Overgeneralization refers to patients' patterns of drawing a general conclusion about their ability, their performance, or their worth on the basis of a single incident. For example, a student regards his poor performance on the first examination of the semester as final proof that he "will never make it in college." Magnification and minimization refer to gross errors in evaluation. For example, a person, believing that he has completely ruined his car (magnification) when he sees that there is a slight scratch on the rear fender, regards himself as "good for nothing." In contrast, minimization refers to minimizing one's achievements, protesting that these achievements do not mean anything. For example, a highly successful businesswoman who was depressed concluded that her many prior successes "were nothing . . . simply luck." Using the cognitive distortions, people are taught to examine their thoughts, to identify any distortions, and then to modify their thoughts in order to eliminate the distortions.

In terms of the therapeutic process, the focus is initially on the automatic thoughts of patients. Once patients are relatively adept at identifying and modifying their maladaptive automatic thoughts, the therapy begins to focus on the maladaptive underlying beliefs or schemata. As previously noted, these beliefs are fundamental beliefs that people hold about themselves. These beliefs are not as easy to identify as the automatic thoughts. Rather, they are identified in an inferential process. Common patterns are observed; for example, the person may seem to be operating by the rule: "If I am not the best [parent, spouse, employee], then I am a failure," or "If I am not loved by my spouse or mate, then I am worthless." As in the case of the earlier cognitive work with automatic thoughts, these beliefs are carefully evaluated for their adaptability or rationality. Maladaptive beliefs are then modified to more adaptive, realistic beliefs.

A variety of techniques have been developed by cognitive therapists for modifying maladaptive cognitions. One example of these techniques is self-monitoring. This involves the patient's keeping a careful hour-by-hour record of his or her activities, associated moods, or other pertinent phenomena. One useful variant is to have the patient record his or her mood on a simple zero-to-one-hundred scale, where zero represents the worst he or she has ever felt and one hundred represents the best. In addition, the patient can record the degree of mastery or pleasure associated with each recorded activity.

A number of hypotheses can be tested using self-monitoring, such as: "It does not do any good for me to get out of bed," "I am always miserable; it never lets up," and "My schedule is too full for me to accomplish what I must." By simply checking the self-monitoring log, one can easily determine if one's miserable mood ever ceases. A careful examination of the completed record is a far better basis for judging such hypotheses than is the patient's memory of recent events, because his or her recollections are almost always tainted by the depression.

As therapy progresses and patients begin to experience more elevated moods, the focus of treatment becomes more cognitive. Patients are instructed to observe and record automatic thoughts, perhaps at a specific time each evening, as well as recording when they become aware of increased dysphoria. Typically, the thoughts are negative self-referents ("I am worthless"; "I will never amount to anything"), and initially, the therapist points out their unreasonable and self-defeating nature. With practice, patients learn "distancing," that is, dealing with such thoughts objectively and evaluating them rather than blindly accepting them. Homework assignments can facilitate distancing: The patient records an automatic thought, and next to it he or she writes down a thought that counters the automatic thought, as the therapist might have done. According to Beck, certain basic themes soon emerge, such as being abandoned, as well as stylistic patterns of thinking, such as overgeneralization. The themes reflect the aforementioned rules, and the ultimate goal of therapy is to assist the patient to modify them.

Finally, cognitive therapy has been applied to a variety of psychological disorders with striking success. For example, studies from seven independent centers have compared the efficacy of cognitive therapy with antidepressant medication, a treatment of established efficacy. Comparisons of cognitive therapy to drugs have found cognitive therapy to be superior or equal to antidepressant medication. Further, follow-up studies indicate that cognitive therapy has greater long-term effects than drug therapy. Of special significance is the evidence of greater sustained improvement over time with cognitive therapy.

Cognitive therapy has been successfully applied to panic disorder, resulting in practically complete reduction of panic attacks after twelve to sixteen weeks of treatment. Additionally, cognitive therapy has been successfully applied to generalized anxiety disorder, eating disorders, and inpatient depression.

Perspective and Prospects

Cognitive theory and cognitive therapy originated in Aaron T. Beck's observation and treatment of depressed patients. Originally trained in psychoanalysis, Beck observed that his patients experienced specific types of thoughts, of which they were only dimly aware, that they did not report during their free associations. Beck noticed that these thoughts were frequently followed by an unpleasant effect. Further, he noted that as the patients examined and modified their thoughts, their mood began to improve.

At the time of the emergence of the cognitive model, the treatment world was dominated primarily by the psychoanalytic model (with its heavy emphasis on the unconscious processes) and to a lesser extent by the behavioral model (with its

emphasis on the behavioral processes, to the exclusion of thought). The psychoanalytic model was under attack, primarily because of a lack of careful empirical support. In contrast, behavior therapists were actively demonstrating the efficacy of their approaches in carefully designed studies. Beck and his students began to develop and test cognitive procedures systematically, and they have developed an impressive body of research support for the approach.

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See also:

Agoraphobia and Panic Disorders; Analytical Psychotherapy; Anxiety Disorders; Cognitive Behavior Therapy; Depression; Person-Centered Therapy; Psychotherapy: Goals and Techniques; Psychotherapy: Historical Approaches to Treatment.

COMMUNITY PSYCHOLOGY

Type of psychology: Social psychology
Fields of study: Attitudes and behavior; social perception and cognition

Community psychology is dedicated to the development of a knowledge base that can be used to implement and evaluate culturally congruent human-services programs. Community psychology is associated with the community mental health movement, and community psychologists have a particular interest in research and services that focus on prevention.

Principal terms

ACTION-ORIENTED RESEARCH: the study of real-world problems using ecologically valid methods; findings should be translated into a policy context and recommendations implemented

CULTURALLY CONGRUENT SERVICES: interventions that take into account the history, aspirations, belief systems, and environmental circumstances of the service recipient

EPIDEMIOLOGY: the study of the rates and distributions of disorders as these data pertain to causes and prevention

INCIDENCE: the number of new cases of a disorder that occur in a given population over a specific time period

PERSON-ENVIRONMENT FIT: a concept related to the fact that adaptation requires compatibility between an individual's behavior and the demands of the environmental setting

PRIMARY PREVENTION: interventions designed to eradicate the causes of disorders and/or the development of interventions that can be initiated before pathology develops

SECONDARY PREVENTION: interventions designed to reduce the prevalence of disorders by means of early identification and timely intervention

TERTIARY PREVENTION: interventions in which the underlying disorder is not directly treated or eliminated; instead, the focus is on mitigating the consequences of the disorder

Overview

Community psychology is founded on the following precepts: an emphasis on the competence of persons and communities; an appreciation of personal and cultural diversity; an orientation that promotes prevention; a preference for organizational, community-level and/or systems-level intervention; and a belief in the need for an ecologically valid data base with which to determine the appropriateness and value of human-service interventions.

Community psychology emphasizes social, environmental, and cultural factors as significant elements influencing the development and expression of behaviors commonly identified as signs of maladjustment. Community psychology demands

a respect for human diversity—people have a right to be different. Requiring that people fit into a particular mold or conform to a particular standard increases the probability that some people will be considered failures or maladjusted individuals. Instead of focusing on how to motivate "deviant" people to adjust, the community psychologist attempts to increase behavioral options, expand cultural and environmental choices, redistribute resources, and foster the acceptance of variability.

From a community psychology perspective, it is not the weakness of the individual that causes psychopathology but a lack of person-environment fit. The concept of person-environment fit is founded in ecology. Ecology posits that each organism is in constant interaction with all aspects of its environment, including all things animate and inanimate. From the ecological perspective, it is the unique interaction of species and the environmental milieu that dictates survival. In relation to people, ecology requires not only an appreciation for the ambient environment but also social, psychological, personal, and cultural factors that interact and influence an individual's adjustment and survival.

Community psychologists use their knowledge of ecological principles to create culturally congruent interventions that maximize service effectiveness. To develop services that are culturally congruent requires an appreciation for the history, aspirations, belief systems, and environmental circumstances of the community or group with which one is to work. Knowing that it is interactions and the fit between persons and environments that are of primary importance, community psychologists work to promote changes at a systems level rather than only working to change the individual. Community psychologists know, however, that even systems-level changes will be of little value—and will perhaps even lead to harm—if they are not personally and culturally relevant to the persons they are designed to help.

There is considerable diversity in the training and orientation of community psychologists. Still, as a general rule, community psychologists can be expected to have knowledge and expertise in the following areas: program development, resource utilization, community organization, consultation, community mental health programming, preventive interventions, program evaluation, grant writing, needs assessment, advocacy, crisis intervention, direct service delivery, manpower training, systems analysis, and the political ramifications of social change. Community psychologists use their knowledge of the preceding areas as they work within the framework of one of the following models: clinical/community, community/clinical, community activist, academic/research, prevention, social ecology, evaluation/policy analysis, or consultation.

Psychologists trained in the clinical/community model have expertise in individual assessment and psychotherapy. They are likely to work within community mental health centers or other human-services programs as direct service providers. They differ from traditionally trained clinical psychologists in having an orientation that is directed toward crisis intervention, public health, and prevention.

The community/clinical model leads to a primary emphasis of working with community groups to enable the development, implementation, and administration of human-services initiatives. This model is very similar to the community-activist

model; persons with a community/clinical orientation, however, are more likely to work within the system than outside it.

Persons following the community-activist model draw on their training in psychology to enable them to confront social injustice and misallocation of resources. These individuals are versed in grassroots community organization, the realities of social confrontation, and advocacy.

The academic/research model of community psychology is founded on the principles of action-oriented research. Here the researcher is directed to work on real-world problems using ecologically valid methods. Furthermore, action-oriented research requires that recommendations that follow from the researcher's findings be implemented.

Psychologists who advocate the prevention model use epidemiological data—information concerning the rates and distribution of disorders—to enable the development of programs designed to prevent mental health problems. Primary prevention programs—undertakings that attempt to keep problems from forming—are the preferred initiatives.

Persons trained in the social-ecology model participate in the development of research and interventions based on an ecological perspective. Here an appreciation of the complexities and the myriad interactions of communities and social organizations is paramount.

The evaluation/policy-analysis model requires that adherents be versed in program evaluation methods—techniques related to the assessment of the quality, efficiency, and effectiveness of service initiatives. This model dictates that information obtained from program evaluation be fed back into the system in the form of policy recommendations.

The consultation model provides a framework for the dissemination of knowledge. To be an effective consultant, the community psychologist must be cognizant of various consultation methods. Furthermore, she or he must have specialized expertise founded in one of the preceding models.

Regardless of the model followed, community psychology demands a commitment to the community, group, or individual served. The job of the community psychologist is to foster competence and independence. The ideal client, whether the client is an individual or a community, is the client who no longer needs the psychologist.

Applications

Community psychology has played a major role in sensitizing human-services professionals to the need for services oriented toward prevention. Many of the assumptions and principles of prevention are taken from the field of public health medicine. Public health officials know that disease cannot be eradicated by treatment alone. Furthermore, the significant gains in life expectancy that have occurred over the last one hundred years are not primarily the result of wonder drugs, transplants, or other marvels of modern medicine. Instead, improved sanitation, immunizations, and access to an adequate food supply have been the key factors in conquering diseases and increasing the human life span.

In order to design and implement effective prevention-oriented programs, one must have an understanding of epidemiology, incidence, and prevalence. Epidemiology is the study of the rates and distributions of disorders as these data pertain to causes and prevention. Incidence is the number of new cases of a disorder that occur in a given population in a specific period. Prevalence is either the total number of cases of a disorder in a given population at a specific point in time or the average number of cases during a specific period. By combining information concerning epidemiology, incidence, and prevalence, it is possible to arrive at insights into the causes of a disorder, likely methods of transmission, prognosis, and intervention methods that may prove fruitful.

Community psychologists identify prevention activities as falling into one of three classifications: primary prevention, secondary prevention, and tertiary prevention. Although some have argued that only primary prevention activities should be recognized as prevention, all three classifications have a place.

In tertiary prevention, the underlying disorder is not directly treated or eliminated; instead, tertiary prevention focuses on mitigating the consequences of a disorder. Tertiary prevention has no effect on incidence rates and little or no effect on prevalence rates. Reducing the stigma associated with the label "mental illness," increasing the self-help skills of persons who have mental retardation, promoting the independence of persons with chronic mental disorders, and developing programs to provide cognitive retraining for persons who have suffered head injuries are examples of tertiary-prevention activities.

An example of a tertiary-prevention program is the community lodge program developed by George Fairweather, which has come to be known as the Fairweather Lodge Program. The program was begun as an attempt to solve a problem that arose in an experiment in giving psychiatric patients the power to direct their treatment by means of self-governing groups. Although it was quite effective, the program suffered because many of its gains did not carry over after patients were discharged. The community lodge program was developed to deal with this problem. During their hospital stays, patients were encouraged to form small support groups. Prior to discharge, members of these support groups would be introduced to the lodge concept. The lodge concept called for former patients to live together, pool their resources, and work as a team in a lodge-owned enterprise. This program, which began in the early 1960's, has been replicated on numerous occasions. Data show that patients discharged to a community lodge are more likely to maintain gainful employment and are less likely to be readmitted to the hospital than are patients discharged to a traditional community mental health program.

Secondary prevention has its basis in the belief that prevalence rates can be reduced if disorders are identified and treated as early as possible. Diversion programs for youths who manifest predelinquent behavior, acute care for persons with mental disorders, employee assistance programs, and psychological screenings for schoolchildren are examples of secondary prevention.

An example of a secondary-prevention program is the Primary Mental Health Project (PMHP) developed by Emory Cowen in the late 1950's. The PMHP was

founded on the basis of the idea that maladjustment in early school grades is associated with the development of behavioral and emotional problems later in life. The program was designed to provide early detection so that interventions could be introduced before significant dysfunction had an opportunity to develop. Furthermore, consultation and competency building—rather than traditional therapeutic techniques—were viewed as the most effective interventions. Although the PMHP has not had a demonstrated effect in reducing later psychiatric disorders, the program has been shown to have other beneficial effects.

Primary prevention is aimed at the eradication of the causes of disorders and/or the development of interventions that can be initiated before pathology develops. Primary prevention results in a lowering of both incidence and prevalence rates. Psychological services for disaster victims, genetic screening, parenting classes, reducing exposure to toxins, immunization for rubella, and maternal nutrition programs are examples of primary-prevention activities. Another example of primary prevention is community education programs designed to teach safe sex and/or to reduce the sharing of contaminated needles. To the extent that these programs reduce the spread of acquired immunodeficiency syndrome (AIDS), they will also decrease the incidence of AIDS dementia complex.

Community psychologists are involved in many service activities besides prevention-oriented enterprises. These initiatives include the training and utilization of paraprofessionals, the promotion of self-help groups and natural helping networks, advocacy, community consultation, program evaluation, the planning and implementation of new human-services programs, crisis intervention, and mental health education.

Perspective and Prospects

Community psychology had its origins in the 1960's, a time of radical ideas, antiestablishment attitudes, and a belief in the perfectibility of humankind. In 1965 in Swampscott, Massachusetts, a meeting was called to ascertain how psychology could most effectively contribute to the emerging community mental health movement.

A transformation in treatment focus was taking place at the time of the Swampscott meeting. This change had been provided with a blueprint for its development in a report by the Joint Commission on Mental Illness and Health written in 1961. The Joint Commission report, *Action for Mental Health*, called for a shift from treating psychiatric patients in large state mental hospitals to the provision of care through outpatient community mental health clinics and smaller inpatient units located in general hospitals. Additionally, the report included the following recommendations: increasing support for research, developing "aftercare," providing partial hospitalization and rehabilitation services, and expanding mental health education to ensure that the public became more aware of mental disorders and to reduce the stigmatization associated with mental illness.

On February 5, 1963, President John F. Kennedy became the first president of the United States to address Congress regarding the needs of the mentally ill and the mentally retarded. President Kennedy called for a "bold new approach" that

would include funding for prevention; expanding the knowledge base regarding causes of disorders and treatment alternatives; and creating a new type of treatment facility that, independent of the ability to pay, would provide high-quality comprehensive care in the local community—the creation of community mental health centers.

In October of 1963, President Kennedy signed into law the Community Mental Health Centers Act. The law required that programs funded through the act provide five essential services: inpatient care, outpatient treatment, emergency services, partial hospitalization, and consultation and education.

Although the initial purpose for convening the Swampscott meeting had been to determine how psychology could contribute to the staffing needs of community mental health centers, the conferees took a broader perspective and chose to view the community mental health movement as addressing a limited aspect of a larger set of social problems. As a consequence, the meeting failed to address adequately the training needs of psychologists who would be working in the new community mental health centers; intead, the most significant result of the meeting was the birth of community psychology.

In the ensuing years, community psychology and community psychology training programs have varied in the degree to which they involve the educational needs of psychologists employed by community mental health centers. Still, there is no doubt that the research and service initiatives that community psychologists have developed in regard to crisis intervention, consulation, prevention, empowerment, the use of paraprofessionals, program planning, resource development, and program evaluation serve as valuable models and contribute to the successful operation of community mental health programs and a variety of other human-services activities.

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Bruce E. Bailey

See also:

Abnormality: Sociocultural Models; Juvenile Delinquency; Mental Health Practitioners.

COUPLES THERAPY

Type of psychology: Psychotherapy
Fields of study: Group and family therapies

Relationship distress represents one of the most common reasons that individuals seek psychological help in the United States. As a result, there is an increasing demand for treatment services which are both effective in altering destructive marital interactions and efficient in the use of the therapist's and client's time.

Principal terms

CROSS-COMPLAINING LOOP: an interactional sequence wherein both individuals describe areas of dissatisfaction within the relationship yet fail to attend to the issue raised by their partner

DOMESTIC VIOLENCE: physical, emotional, psychological, or sexual abuse perpetrated by a family member toward another family member; typically the abuse follows a repetitive, predictable pattern

OPERANT CONDITIONING: a type of learning in which behaviors are altered primarily by the consequences that follow them (reinforcement or punishment)

PREVENTION PROGRAMS: intervention strategies designed to reduce or eliminate difficulties in the future by providing training in specific skills

PROSOCIAL BEHAVIOR: activities or behaviors performed by an individual which are intended to benefit others or society

PSYCHOPHYSIOLOGICAL: referring to the interaction between the psyche (mind) and the physiology (such as the regulatory processes of the nervous system) of an organism

VALIDATION LOOP: an interactional sequence in which one partner expresses dissatisfaction and the other partner expresses either agreement or support

Overview

Traditionally, marriage vows have represented pledges of mutual love and enduring commitment. Since the 1960's, however, marital relationships have changed dramatically. In fact, while more than 90 percent of the United States population will marry at least once in their lifetime, it is anticipated that approximately 50 percent of first marriages and 60 percent of second marriages will end in divorce. Moreover, while the average first marriage in the United States will last only five to seven years, second marriages typically endure only for five years. It appears that a repetitive pattern of marriage, distress, and divorce has become commonplace. Such a cycle often results in considerable pain and psychological turmoil for the couple, their family, and their friends. These statistics dramatically indicate the need for effective ways to help couples examine and reapproach their relationships before deciding whether to terminate them.

Research has found evidence that links divorce and relationship distress to a wide variety of emotional disorders in spouses and their children. Depressive

syndromes are evident in approximately half of female spouses and nearly 15 percent of male partners in dysfunctional marriages. Almost half of all first admissions to state hospitals in the United States have relationship stress as a major factor. Evidence further reveals that suicide often follows marital discord, separation, and divorce. In fact, divorce and marital separation represent two of the most common yet significant stressors in adult life.

Partners who seek couples therapy or counseling frequently have problems in two areas: communication and conflict resolution. These are the two major difficulties that most often lead to divorce. It has been shown that communication skills differentiate satisfied and dissatisfied couples more powerfully than any other factor. Indeed, communication difficulties are the most frequently cited complaint among partners reporting relationship distress.

Psychologist John M. Gottman, in his books *Marital Interaction: Experimental Investigations* (1979) and *A Couple's Guide to Communication* (Gottman et al., 1976), and various other researchers have highlighted the importance of communication problems within distressed relationships. Many characteristic differences between distressed and satisfied couples have been noted. Partners in distressed couples often misperceive "well-intended" statements from their partners, whereas satisfied couples are more likely to rate well-intended messages as positive; distressed partners also engage in fewer rewarding exchanges and more frequent punishing interactions than nondistressed couples. A partner in a distressed relationship is more immediately reactive to perceived negative communication exhibited by his or her partner. There is generally a greater emphasis on negative communication strategies between distressed partners.

Distressed couples appear to be generally unskilled at generating positive change in their relationship. Gottman also reported that distressed couples are often ineffectual in their attempts to resolve conflicts. Whereas nondistressed couples employ "validation loops" during problem-solving exercises (one partner states the conflict and the other partner expresses agreement or support), distressed couples typically enter into repetitive, cross-complaining loops. Moreover, as one spouse initiates aversive control tactics, the other spouse will typically reciprocate with similar behavior.

Couples therapy attempts to alleviate distress, resolve conflicts, improve daily functioning, and prevent problems via an intensive focus on the couple as a unit and on each partner as an individual. Couples therapists are faced with a variety of choices regarding treatment format and therapeutic approach. Individual therapy focuses treatment on only one of the partners. Although generally discouraged by most practitioners, individual treatment of one partner can provide greater opportunities for the client to focus more on his or her own thoughts, feelings, problems, and behaviors. Clients may feel less hesitant in sharing some details they would not want a spouse to hear, and individual treatment may encourage the client to take greater personal responsibility for problems and successes. In general, these advantages are outweighed by the difficulties encountered when treating "relationship problems" without both partners being present. In particular, interpersonal interactions are complex phenomena that need to be evaluated and treated with both partners present.

Concurrent therapy involves both partners being seen in treatment separately, either by the same therapist or by two separate but collaborating therapists. Advantages of the concurrent format include greater individual attention and opportunities to develop strategies to improve relationship skills by teaching each partner those techniques separately. Concurrent treatment, however, does not allow the therapist(s) to evaluate and treat the nature of the interpersonal difficulties with both partners simultaneously present in the same room.

Conjoint format, on the other hand, involves both partners simultaneously in the therapy session. Conjoint treatment tends to be widely used and generally recommended because it focuses intensively on the quality of the relationship, promotes dialogue between the couple, and can attend to the needs and goals of each partner as well as the needs and goals of the couple. The history of conjoint marital therapy begins, ironically, with Sigmund Freud's failures in this area. He believed firmly that it was counterproductive and dangerous for a therapist ever to treat more than one member of the same family. In fact, after attempting to provide services simultaneously to a husband and wife, Freud (in 1912) concluded that he was at a complete loss in terms of understanding how to treat relationship problems within a couple. He also added that he had little faith in individual therapy for them.

As currently practiced, conjoint treatment is designed to focus intensively on the relationship in order to effect specific therapeutic change for that particular couple. Interventions can be "tailor-made" for the couple seeking treatment, regardless of the nature of the problem the couple describes (such as sexual relations, child rearing, household responsibilities). Moreover, couples are constantly engaged in a direct dialogue with each other, which can foster improved understanding and resolution or conflict. As compared with other approaches, conjoint marital therapy can focus on each of the specific needs and goals of the individual couple.

Group couples treatment programs have received increased attention and have shown very good to excellent treatment success. Advantages of group treatment for couples include opportunities for direct assessment and intervention of the relationship within a setting which promotes greater opportunity for feedback and suggestions from other couples experiencing similar difficulties. In fact, group therapy may promote positive expectations through witnessing improvements among other couples as well as fostering a sense of cohesiveness among couples within the group. In the group format, each partner has the opportunity to develop improved communication and conflict resolution appraoches by learning relationship skills via interaction with the therapist(s), his or her spouse, and other group members. In addition, the cost of individual, concurrent, and conjoint therapy, in terms of time as well as dollars, has prompted several researchers and clinicians to recommend group couples therapy.

Applications

There are numerous approaches to the treatment of relationship problems currently practiced in the United States. Psychodynamic therapy focuses attention on the unconscious needs and issues raised during an individual's childhood. Phenomenological therapists focus on the here-and-now experiences of being in a

relationship and have developed a variety of creative therapeutic techniques. Systems therapists view interpersonal problems as being maintained by the nature of the relationship structure, patterns of communication, and family roles and rules.

Behavioral marital therapy, however, is the most thoroughly investigated approach within the couples therapy field. Starting from a focus on operant conditioning, behavioral marital therapy includes a wide range of assessment and treatment strategies. The underlying assumption that best differentiates behavioral treatments for distressed couples from other approaches is that the two partners are viewed as ineffectual in their attempts to satisfy each other. Thus, the goal of therapy is to improve relationship satisfaction by creating a supportive environment in which the skills can be acquired. Behavioral marital therapy incorporates strategies designed to improve daily interactions, communication patterns, and problem-solving abilities, and to examine and modify unreasonable expectations and faulty thinking styles.

Psychologists Philip and Marcy Bornstein, in their book *Marital Therapy: A Behavioral-Communications Approach* (1986), described a sequential five-step procedure in the treatment of relationship dysfunction. These steps include intake interviewing, behavioral exchange strategies, communication skills acquisition, training in problem solving, and maintenance and generalization of treatment gains.

Intake interviewing is designed to accomplish three primary goals: development of a working relationship with the therapist, collection of assessment information, and implementation of initial therapeutic regimens. Because spouses entering treatment have often spent months, if not years, in conflict and distress, the intake procedure attempts to provide a unique opportunity to impact and assess the couple's relationship immediately. Since distressed couples often devote a considerable amount of time thinking about and engaging in discordant interpersonal interactions with each other, it naturally follows that they will attempt to engage in unpleasant interactions during initial sessions. Information about current difficulties and concerns is clearly valuable, but improved communication skills and positive interactions appear to be of even greater merit early in treatment. Thus, couples are discouraged from engaging in cross-complaining loops and are encouraged to develop skills and implement homework procedures designed to enhance the relationship.

Building a positive working relationship between partners is viewed as essential in couples treatment programs. During training in behavioral exchange strategies, couples are aided in specifying and pinpointing behaviors that tend to promote increased harmony in their relationship. Couples engage in contracting and compromise activities in order to disrupt the downward spiral of their distressed relationship.

Training in communication skills focuses on teaching and practicing the basics of communication (such as respect, understanding, and sensitivity), positive principles of communication (timeliness, marital manners, specification, and "mind reading"), improving nonverbal behaviors, and learning "molecular" verbal behaviors (such as assertiveness and constructive agreement). Improved communication styles are fostered via a direct, active approach designed to identify, reinforce, and

rehearse desirable patterns of interactions. Clients are generally provided with specific instructions and "practice periods" during sessions in which partners are encouraged to begin improving their interactional styles. It is common that these sessions are audiotaped or videotaped to give couples specific feedback regarding their communication styles.

Training in problem solving is intended to teach clients to negotiate and resolve conflicts in a mutually beneficial manner. Conflict resolution training focuses on teaching, practicing, and experiencing effective problem-solving approaches. Couples receive specific instruction on systematic problem-solving approaches and are given homework assignments designed to improve problem-solving skills. Because the value of couples therapy lies in the improvement, maintenance, and use of positive interaction styles over time and across situations, treatment often aims to promote constructive procedures after the termination of active treatment. Thus, people are taught that it is generally easier to change oneself than one's partner, that positive interaction styles may be forgotten or unlearned if these strategies are not regularly practiced, and that new positive interactions can continue to develop in a variety of settings even as treatment ends.

To highlight further the utility and effectiveness of behavioral-communications relationship therapy, Philip Bornstein, Laurie Wilson, and Gregory L. Wilson (1988) conducted an empirical investigation comparing conjoint behavioral-communications therapy and group behavioral-communications therapy to a waiting-list control group (the waiting-list control group included couples who were asked to wait two months prior to beginning treatment). Fifteen distressed couples were randomly assigned to experimental conditions and offered eight sessions of couples therapy. At the conclusion of treatment (as well as six months later), the couples in active treatment revealed significant alleviation of relationship distress. The conjoint and group couples revealed similar levels of improvement in communication skills, problem-solving abilities, and general relationship satisfaction. The waiting-list couples, on the other hand, revealed no improvement while they waited for treatment, indicating that relationship distress does not tend to improve simply as the result of the passage of time.

Another line of couples research has focused on the utility of premarital intervention, or distress and divorce prevention programs. Unlike treatment programs, prevention programs intervene prior to the development of relationship distress. Prevention efforts are focused on the future and typically involve the training of specific skills which are viewed as useful in preventing relationship distress. Three major approaches to premarital intervention include the Minnesota Couples Communication Program, Bernard Guerney's relationship enhancement approach, and the Premarital Relationship Enhancement Program. Research is generally supportive of the effectiveness of these programs in helping partners learn useful skills which translate into improved relationships for at least three to eight years following the program. In addition, some evidence indicates that the alarming divorce rate in the United States can be decreased if partners participate in prevention programs prior to marriage; prevention programs that emphasize communication and conflict-resolution skills seem most advantageous.

There has also been considerable interest in the utility of couples-based treatment for various psychological disorders, including depression, anxiety disorders, and alcoholism. For example, the rationale for couples intervention as a viable treatment for depressed clients rests on the assumption that marital dysfunction is either causative or related to the maintenance of the depressed state. Whereas more than 50 percent of married couples seeking relationship therapy have at least one spouse who is depressed, and nearly 50 percent of women seeking depression treatment report marital discord, it appears that depression and marital dysfunction are not necessarily distinct problems. Thus, a primary advantage of marital therapy strategies in the resolution of depression is the simultaneous emphasis and demonstrated effectiveness of such interventions in reducing relationship discord as well as depression.

Perspective and Prospects

Since 1970, researchers and clinicians have witnessed large increases in the numbers of couples seeking treatment from therapists. As the demand for couples treatment has increased, more time and effort has been devoted to improving treatment methods. The behavioral approach has been shown to be highly effective in reducing relationship distress and preventing divorce; however, several investigations have demonstrated that cognitive components such as causal attributions and expectations are strongly related to satisfaction in the relationship. Moreover, it has been argued that dysfunctional cognitions may interfere with both the establishment and maintenance of positive behavior change. Evidence has prompted several researchers and practitioners alike to advocate a more systematic inclusion of strategies of cognitive behavior therapy within the behavioral marital therapy framework. Specifically, it is possible that the combination of cognitive and behavioral approaches will demonstrate increased utility if the two treatments are presented together in a singular, integrated treatment intervention. Such treatment would afford couples the opportunity to benefit from either one or both of the complementary approaches, depending on their own unique needs, at any time during the course of treatment. Moreover, such an integration of cognitive and behavioral tactics would parallel effective approaches already employed with depressed and anxious clients.

Interpersonal relationships are a highly complex yet important area of study and investigation. The decision to marry (or at least to commit to a serious intimate relationship) is clearly one of the most significant choices people make in their lives. Unfortunately, it is rare to find school curricula that offer any assistance, training, or education to help young people understand interpersonal relationships or make the decision to marry. Fortunately, advances in couples therapy have led to increased knowledge about interpersonal relationships and methods for improving relationship satisfaction. These advances have been documented in the scientific literature, and they extend to the treatment of cohabitating partners, premarital couples, remarried partners, gay or lesbian couples, separating or divorced couples, and stepfamilies. Moreover, couples-based treatment programs have shown effectiveness in the treatment of depression, anxiety disorders, domestic violence, sexual dysfunction, and a host of other problems.

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See also:

Behavioral Family Therapy; Cognitive Behavior Therapy; Depression; Divorce and Separation: Adult Issues; Domestic Violence; Group Therapy; Midlife Crises; Psychotherapy: Effectiveness; Psychotherapy: Goals and Techniques; Strategic Family Therapy.

DEMENTIA

Type of psychology: Memory; psychopathology
Fields of study: Cognitive processes; organic disorders

Dementia is a generally irreversible decline in intellectual ability resulting from a variety of causes. It differs from mental retardation, in which the affected person never reaches an expected level of mental growth.

Principal terms

BASAL GANGLIA: a collection of nerve cells deep inside the brain, below the cortex, that controls muscle tone and automatic actions such as walking

CORTICAL DEMENTIA: dementia resulting from damage to the brain cortex, the outer layer of the brain that contains the bodies of the nerve cells

DELIRIUM: an acute condition characterized by confusion, a fluctuating level of consciousness, and visual, auditory, and even tactile hallucinations; often caused by acute disease, such as infection or intoxication

HYDROCEPHALUS: a condition resulting from the accumulation of fluid inside the brain in cavities known as ventricles; as fluid accumulates, it exerts pressure on the neighboring brain cells, which may be destroyed

SUBCORTICAL DEMENTIA: dementia resulting from damage to the area of the brain below the cortex; this area contains nerve fibers that connect various parts of the brain with one another and with the basal ganglia

VASCULAR DEMENTIA: dementia caused by repeated strokes, resulting in interference with the blood supply to parts of the brain

Causes and Symptoms

Dementia affects millions of people in the United States and is a major cause of disability in old age. Its prevalence increases with age. Dementia is characterized by a permanent memory deficit affecting recent memory in particular and of sufficient severity to interfere with the patient's ability to take part in professional and social activities. Although the aging process is associated with a gradual loss of brain cells, dementia is not part of the aging process. It also is not synonymous with benign senescent forgetfulness, which is very common in old age and affects recent memory. Although the latter is a source of frustration, it does not significantly interfere with the individual's professional and social activities because it tends to affect only trivial matters (or what the individual considers trivial). Furthermore, patients with benign forgetfulness usually can remember what was forgotten by utilizing a number of subterfuges, such as writing lists or notes to themselves and leaving them in conspicuous places. Individuals with benign forgetfulness also are acutely aware of their memory deficit, while those with dementia—except in the early stages of the disease—have no insight into their memory deficit and often blame others for their problems.

In addition to the memory deficit interfering with the patient's daily activities,

patients with dementia have evidence of impaired abstract thinking, impaired judgment, or other disturbances of higher cortical functions such as aphasia (the inability to use or comprehend language), apraxia (the inability to execute complex, coordinated movements), or agnosia (the inability to recognize familiar objects).

Dementia may result from damage to the cerebral cortex (the outer layer of the brain), as in Alzheimer's disease, or from damage to the subcortical structures (the structures below the cortex), such as white matter, the thalamus, or the basal ganglia. Although memory is impaired in both cortical and subcortical dementias, the associated features are different. In cortical dementias, for example, cognitive functions such as the ability to understand speech and to talk and the ability to perform mathematical calculations are severely impaired. In subcortical dementias, on the other hand, there is evidence of disturbances of arousal, motivation, and mood, in addition to a significant slowing of cognition and of information processing.

Alzheimer's disease, the most common cause of presenile dementia, is characterized by progressive disorientation, memory loss, speech disturbances, and personality disorders. Pick's disease is another cortical dementia, but unlike Alzheimer's disease, it is rare, tends to affect younger patients, and is more common in women. In the early stages of Pick's disease, changes in personality, disinhibition, inappropriate social and sexual conduct, and lack of foresight may be evident—features that are not common in Alzheimer's disease. Patients also may become euphoric or apathetic. Poverty of speech is often present and gradually progresses to mutism, although speech comprehension is usually spared. Pick's disease is characterized by cortical atrophy localized to the frontal and temporal lobes.

Vascular dementia is a common cause of dementia in patients over the age of sixty-five. It is caused by interference with the blood flow to the brain. Although the overall prevalence of vascular dementia is decreasing, there are some geographical variations, with the prevalence being higher in countries with a high incidence of cardiovascular and cerebrovascular diseases, such as Finland and Japan. About 20 percent of patients with dementia have both Alzheimer's disease and vascular dementia. Several types of vascular dementia have been identified.

Multiple infarct dementia (MID) is the most common type of vascular dementia. As its name implies, it is the result of multiple, discrete cerebral infarcts (strokes) that have destroyed enough brain tissue to interfere with the patient's higher mental functions. The onset of MID is usually sudden and is associated with neurological deficit, such as the paralysis or weakness of an arm or leg or the inability to speak. The disease characteristically progresses in steps: With each stroke experienced, the patient's condition suddenly deteriorates and then stabilizes or even improves slightly until another stroke occurs. In about 20 percent of patients with MID, however, the disease displays an insidious onset and causes gradual deterioration. Most patients also show evidence of arteriosclerosis and other factors predisposing them to the development of strokes, such as hypertension, cigarette smoking, high blood cholesterol, diabetes mellitus, narrowing of one or both carotid arteries, or

POSSIBLE SYMPTOMS OF MULTIPLE INFARCT DEMENTIA

- wandering or getting lost in familiar surroundings
- moving with rapid, shuffling steps
- loss of bladder or bowel control
- laughing or crying inappropriately
- difficulty following instructions
- problems handling money

cardiac disorders, especially atrial fibrillation (an irregular heartbeat). Somatic complaints, mood changes, depression, and nocturnal confusion tend to be more common in vascular dementias, although there is relative preservation of the patient's personality. In such cases, magnetic resonance imaging (MRI) or a computed tomography (CT) scan of the brain often shows evidence of multiple strokes.

Strokes are not always associated with clinical evidence of neurological deficits, since the stroke may affect a "silent" area of the brain or may be so small that its immediate impact is not noticeable. Nevertheless, when several of these small strokes have occurred, the resulting loss of brain tissue may interfere with the patient's cognitive functions. This is, in fact, the basis of the lacunar dementias. The infarcted tissue is absorbed into the rest of the brain, leaving a small cavity or lacuna. Brain-imaging techniques and especially MRI are useful in detecting these lacunae.

A number of neurological disorders are associated with dementia. The combination of dementia, urinary incontinence, and muscle rigidity causing difficulties in walking should raise the suspicion of hydrocephalus. In this condition, fluid accumulates inside the ventricles (cavities within the brain) and results in increased pressure on the brain cells. A CT scan demonstrates enlargement of the ventricles. Although some patients may respond well to surgical shunting of the cerebrospinal fluid, it is often difficult to identify those who will benefit from surgery. Postoperative complications are significant and include strokes and subdural hematomas.

Dementia has been linked to Parkinson's disease, a chronic, progressive neurological disorder that usually manifests itself in middle or late life. It has an insidious onset and a very slow progression rate. Although intellectual deterioration is not part of the classical features of Parkinson's disease, dementia is being recognized as a late manifestation of the disease, with as many as one-third of the patients eventually being afflicted. The dementing process also has an insidious onset and slow progression rate. Some of the medication used to treat Parkinson's disease also may induce confusion, particularly in older patients.

Subdural hematomas (collections of blood inside the brain) may lead to mental impairment and are usually precipitated by trauma to the head. Usually, the trauma is slight and the patient neither loses consciousness nor experiences any immediate significant effects. A few days or even weeks later, however, the patient may develop evidence of mental impairment. By that time, the patient and caregivers may have forgotten about the slight trauma that the patient had experienced. A subdural hematoma should be suspected in the presence of a fairly sudden onset and progressing course. Headaches are common. A CT scan can reveal the presence of a hematoma. The surgical removal of the hematoma is usually associated

with a good prognosis if the surgery is done in a timely manner, before irreversible brain damage occurs.

Brain tumors may lead to dementia, particularly if they are slow growing. Most tumors of this type can be diagnosed by CT scanning or MRI. Occasionally, cancer may induce dementia through an inflammation of the brain.

Many chronic infections affecting the brain can lead to dementia; they include conditions that, when treated, may reverse or prevent the progression of dementia, such as syphilis, tuberculosis, slow viruses, and some fungal and protozoal infections. Human immunodeficiency virus (HIV) infection is also a cause of dementia, and it may be suspected if the rate of progress is rapid and the patient has risk factors for the development of HIV infection. Although the dementia is part of the acquired immunodeficiency syndrome (AIDS) complex, it may occasionally be the first manifestation of the disease.

It is often difficult to differentiate depression from dementia. Nevertheless, sudden onset—especially if preceded by an emotional event, the presence of sleep disturbances, and a history of previous psychiatric illness—is suggestive of depression. The level of mental functioning of patients with depression is often inconsistent. They may, for example, be able to give clear accounts of topics that are of personal interest to them but be very vague about, and at times may not even attempt to answer, questions on topics that are of no interest to them. Variability in performance during testing is suggestive of depression, especially if it improves with positive reinforcement.

For physicians, an important aspect of diagnosing patients with dementia is detecting potentially reversible causes which may be responsible for the impaired mental functions. A detailed history followed by a meticulous and thorough clinical examination and a few selected laboratory tests are usually sufficient to reach a diagnosis. Various investigators have estimated that reversible causes of dementia can be identified in 10 percent to 20 percent of patients with dementia. Recommended investigations include brain imaging (CT scanning or MRI), a complete blood count, and tests of erythrocyte sedimentation rate, blood glucose, serum electrolytes, serum calcium, liver function, thyroid function, and serum B_{12} and folate. Some investigators also recommend routine testing for syphilis. Other tests, such as those for the detection of HIV infection, cerebrospinal fluid examination, neuropsychological testing, drug and toxin screen, serum copper and ceruloplasmin analysis, carotid and cerebral angiography, and electroencephalography, are performed when appropriate.

Treatment and Therapy

It is of paramount importance for health care providers to adopt a positive attitude when managing patients with dementia. Although at present little can be done to treat and reverse dementia, it is important to identify the cause of the dementia. In some cases, it may be possible to prevent the disease from progressing. For example, if the dementia is the result of hypertension, adequate control of this condition may prevent further brain damage. Moreover, the prevalence of vascular dementia is decreasing in countries where efforts to reduce cardiovascular and

cerebrovascular diseases have been successful. Similarly, if the dementia is the result of repeated emboli (blood clots reaching the brain) complicating atrial fibrillation, then anticoagulants or aspirin may be recommended.

Even after a diagnosis of dementia is made, it is important for the physician to detect the presence of other conditions that may worsen the patient's mental functions, such as the inadvertent intake of medications that may induce confusion and mental impairment. Medications with this potential are numerous and include not only those that act on the brain, such as sedatives and hypnotics, but also hypotensive agents (especially if given in large doses), diuretics, and antibiotics. Whenever the condition of a patient with dementia deteriorates, the physician meticulously reviews all the medications that the patient is taking, both medical prescriptions and medications that may have been purchased over the counter. Even if innocuous, some over-the-counter preparations may interact with other medications that the patient is taking and lead to a worsening of mental functions. Inquiries are also made into the patient's alcohol intake. The brain of an older person is much more sensitive to the effects of alcohol than that of a younger person, and some medications may interact with the alcohol to impair the patient's cognitive functions further.

Many other disease states also may worsen the patient's mental functions. For example, patients with diabetes mellitus are susceptible to developing a variety of metabolic abnormalities including a low or high blood glucose level, both of which may be associated with confusional states. Similarly, dehydration and acid-base or electrolyte disorders, which may result from prolonged vomiting or diarrhea, may also precipitate confusional states. Infections, particularly respiratory and urinary tract infections, often worsen the patient's cognitive deficit. Finally, patients with dementia may experience myocardial infarctions (heart attacks) that are not associated with any chest pain but that may manifest themselves with confusion.

The casual observer of the dementing process is often overwhelmed with concern for the patient, but it is the family that truly suffers. The patients themselves experience no physical pain or distress, and except in the very early stages of the disease, they are oblivious to their plight as a result of their loss of insight. Health care professionals therefore are alert to the stress imposed on the caregivers who must deal with loved ones with dementia. Adequate support from agencies available in the community is essential.

When a diagnosis of dementia is made, the physician discusses a number of ethical, financial, and legal issues with the family, and also the patient if it is believed that he or she can understand the implications of this discussion. Families are encouraged to make a list of all the patient's assets, including insurance policies, and to discuss this information with an attorney in order to protect the patient's and the family's assets. If the patient is still competent, it is recommended that he or she select a trusted person to have durable power of attorney. Unlike the regular power of attorney, the former does not become invalidated when the patient becomes mentally incompetent and continues to be in effect regardless of the degree of mental impairment of the person who executed it. Because durable power of attorney cannot be easily reversed once the person is incompetent, great care

should be taken when selecting a person, and the specific powers granted should be clearly specified. It is also important for the patient to make his or her desires known concerning advance directives and the use of life-support systems.

Courts may appoint a guardian or conservator to have charge and custody of the patient's property (including real estate and money) when no responsible family members or friends are willing or available to serve as guardian. Courts supervise the actions of the guardian, who is expected to report all the patient's income and expenditures to the court once a year. The court may also charge the guardian to ensure that the patient is adequately housed, fed, and clothed and receiving appropriate medical care.

Perspective and Prospects

Dementia is a very serious and common condition, especially among the older population. Dementia permanently robs patients of their minds and prevents them from functioning adequately in their environment by impairing memory and interfering with the ability to make rational decisions. It therefore deprives patients of their dignity and independence.

Because dementia is mostly irreversible, cannot be adequately treated at present, and is associated with a fairly long survival period, it has a significant impact not only on the patient's life but also on the patient's family and caregivers and on society in general. The expense of long-term care for patients with dementia, whether at home or in institutions, is staggering. Every effort, therefore, is made to reach an accurate diagnosis and especially to detect any other condition that may worsen the patient's underlying dementia. Finally, health care professionals do not treat the patient in isolation but also concern themselves with the impact of the illness on the patient's caregivers and family.

Much progress has been made in defining dementia and determining its cause. Terms such as "senile dementia" are no longer in use, and even the use of the term "dementia" to diagnose a patient's condition is frowned upon because there are so many types of dementia. The recognition of the type of dementia affecting a particular patient is important because of its practical implications, both for the patient and for research into the prevention, management, and treatment of dementia. The prevalence of vascular dementia, for example, is decreasing in many countries where the prevention of cardiovascular diseases such as hypertension and arteriosclerosis has been successful.

Unfortunately, there is little that can be done to cure dementia and no effective means to regenerate nerve cells. Researchers, however, are feverishly trying to identify factors that control the growth and regeneration of nerve cells. Although no single medication is expected to be of benefit to all types of dementia, it is hoped that effective therapy for many dementias will be developed.

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See also:

Alzheimer's Disease; Amnesia, Fugue, and Multiple Personality; Brain Disorders; Geriatric Psychiatry; Memory Loss.

DEPRESSION

Type of psychology: Psychopathology
Fields of study: Depression

Depression is the single most common psychiatric disorder, caused by biological and/or psychological factors; approximately 15 percent of cases result in suicide.

Principal terms

BIPOLAR DISORDER: a mood disorder characterized by one or more manic and major depressive episodes occurring simultaneously or in cycles

CYCLOTHYMIA: a mood disorder characterized as a less intense form of bipolar disorder

DYSTHYMIA: a mood disorder characterized as a less intense form of depressive disorder

ELECTROCONVULSIVE THERAPY: the use of electric shocks to induce seizure in depressed patients as a form of treatment

MAJOR DEPRESSIVE DISORDER: a pattern of major depressive episodes that form an identified psychiatric disorder

MAJOR DEPRESSIVE EPISODE: a syndrome of symptoms characterized by depressed mood; required for the diagnosis of some mood disorders

MANIC EPISODE: a syndrome of symptoms characterized by elevated, expansive, or irritable mood; required for the diagnosis of some mood disorders

SEASONAL AFFECTIVE DISORDER: a mood disorder associated with the winter season, when the amount of daylight hours is reduced

Causes and Symptoms

The term "depression" is used to describe a fleeting mood, an outward physical appearance of sadness, or a diagnosable clinical disorder. It is estimated that 13 million Americans suffer from a clinically diagnosed depression, a mood disorder that often affects personal, vocational, social, and health functioning. The *Diagnostic and Statistical Manual of Mental Disorders* (4th ed., 1994, DSM-IV) of the American Psychiatric Association delineates a number of mood disorders that subsume the various types of clinical depression.

A major depressive episode is a syndrome of symptoms, present during a two-week period and representing a change from previous functioning. The symptoms include at least five of the following: depressed or irritable mood, diminished interest in previously pleasurable activities, significant weight loss or weight gain, insomnia or hypersomnia, physical excitation or slowness, loss of energy, feelings of worthlessness or guilt, indecisiveness or a diminished ability to concentrate, and recurrent thoughts of death. The clinical depression cannot be initiated or maintained by another illness or condition, and it cannot be a normal reaction to the death of a loved one (some symptoms of depression are a normal part of the grief reaction).

Many of the psychosocial stressors associated with old age, such as the deaths of loved ones and chronic illnesses, are common causes of clinical depression. (PhotoDisc)

In major depressive disorder, the patient experiences a major depressive episode and does not have a history of mania or hypomania. Major depressive disorder is often first recognized in the patient's late twenties, while a major depressive episode can occur at any age, including infancy. Women are twice as likely to suffer from the disorder than are men.

There are several potential causes of major depressive disorder. Genetic studies suggest a familial link with higher rates of clinical depression in first-degree relatives. There also appears to be a relationship between clinical depression and levels of the brain's neurochemicals, specifically serotonin and norepinephrine. It is important to keep in mind, however, that 20 to 30 percent of adults will experience depression in their lifetime. Common causes of clinical depression include psychosocial stressors, such as the death of a loved one or the loss of a job, or any of a number of personal stressors; it is unclear why some people respond to a specific psychosocial stressor with a clinical depression and others do not. Finally, certain prescription medications have been noted to cause clinical depression. These drugs include muscle relaxants, heart medications, hypertensive medications, ulcer medications, oral contraceptives, and steroids. Thus there are many causes of clinical depression, and no single cause is sufficient to explain all clinical depressions.

Another category of depressive disorder are bipolar disorders, which affect approximately 1 to 2 percent of the population. Bipolar I disorder is characterized by one or more manic episodes along with persisting symptoms of depression. A manic episode is defined as a distinct period of abnormally and persistently

elevated, expansive, or irritable mood. Three of the following symptoms must occur during the period of mood disturbance: inflated self-esteem, decreased need for sleep, unusual talkativeness or pressure to keep talking, racing thoughts, distractibility, excessive goal-oriented activities (especially in work, school, or social areas), and reckless activities with a high potential for negative consequences (such as buying sprees or risky business ventures). For a diagnosis of bipolar disorder, the symptoms must be sufficiently severe to cause impairment in functioning and/or concern regarding the person's danger to himself/herself or to others, must not be superimposed on another psychotic disorder, and must not be initiated or maintained by another illness or condition. Bipolar II disorder is characterized by a history of a major depressive episode and current symptoms of mania.

Patients with bipolar disorder will display cycles in which they experience a manic episode followed by a short episode of a major depressive episode, or vice versa. These cycles are often separated by a period of normal mood. Occasionally, two or more cycles can occur in a year without a period of remission between them, in what is referred to as rapid cycling. The two mood disorders can also occur simultaneously in a single episode. Bipolar disorder is often first recognized in adolescence or in the patient's early twenties; it is not unusual, however, for the initial recognition to occur later in life. Bipolar disorder is equally common in both males and females.

Genetic patterns are strongly involved in bipolar disorder. Brain chemicals (particularly dopamine, acetylcholine, GABA, and serotonin), hormones, drug reactions, and life stressors have all been linked to its development. Of particular interest are findings which suggest that, for some patients with bipolar disorder, changes in the seasons affect the frequency and severity of the disorder. These meteorological effects, while not well understood, have been observed in relation to other disorders of mood.

Cyclothymia is another cyclic mood disorder related to depression; it has a reported lifetime prevalence of approximately 1 to 2 percent. This chronic mood disorder is characterized by manic symptoms without marked social or occupational impairment ("hypomanic" episodes) and symptoms of major depressive episode that do not meet the clinical criteria (less than five of the nine symptoms described above). These symptoms must be present for at least two years, and if the patient has periods without symptoms, these periods cannot be longer than two months. Cyclothymia cannot be superimposed on another psychotic disorder and cannot be initiated or maintained by another illness or condition. This mood disorder has its onset in adolescence and early adulthood and is equally common in men and women. It is a particularly persistent and chronic disorder with an identified familial pattern.

Dysthymia is another chronic mood disorder affecting approximately 2 to 4 percent of the population. Dysthymia is characterized by at least a two-year history of depressed mood and at least two of the following symptoms: poor appetite, insomnia or hypersomnia, low energy or fatigue, low self-esteem, poor concentration or decision making, or feelings of hopelessness. There cannot be evidence of

a major depressive episode during the first two years of the dysthymia or a history of manic episodes or hypomanic episodes. The patient cannot be without the symptoms for more than two months at a time, the disorder cannot be superimposed on another psychotic disorder, and it cannot be initiated or maintained by another illness or condition. Dysthymia appears to begin at an earlier age, as young as childhood, with symptoms typically evident by young adulthood. Dysthymia is more common in adult females, equally common in both sexes of children, and with a greater prevalence in families. The causes of dysthymia are believed to be similar to those listed for major depressive disorder.

Treatment and Therapy

Crucial to the choice of treatment for clinical depression is determining the variant of depression being experienced. Each of the diagnostic categories has associated treatment approaches that are more effective for a particular diagnosis. Multiple assessment techniques are available to the health care professional to determine the type of clinical depression. The most valid and reliable is the clinical interview. The health care provider may conduct either an informal interview or a structured, formal clinical interview assessing the symptoms that would confirm the diagnosis of clinical depression. If the patient meets the criteria set forth in the DSM-IV, then the patient is considered for depression treatments. Patients who meet many but not all diagnostic criteria are sometimes diagnosed with a "subclinical" depression. These patients might also be considered appropriate for the treatment of depression, at the discretion of their health care providers.

Another assessment technique is the "paper-and-pencil" measure, or depression questionnaire. A variety of questionnaires have proven useful in confirming the diagnosis of clinical depression. Questionnaires such as the Beck Depression Inventory, Hamilton Depression Rating Scale, Zung Self-Rating Depression Scale, and the Center for Epidemiologic Studies Depression Scale are used to identify persons with clinical depression and to document changes with treatment. This technique is often used as an adjunct to the clinical interview and rarely stands alone as the definitive assessment approach to diagnosing clinical depression.

Laboratory tests, most notably the dexamethasone suppression test, have also been used in the diagnosis of depression. The dexamethasone suppression test involves injecting a steroid (dexamethasone) into the patient and measuring the production levels of another steroid (cortisol) in response. Studies have demonstrated, however, that certain severely depressed patients do not reveal the suppression of cortisol production that would be expected following the administration of dexamethasone. The test has also failed to identify some patients who were depressed and has mistakenly identified others as depressed. Research continues to determine the efficacy of other laboratory measures of brain activity to include computed tomography (CT) scanning, positron emission tomography (PET) scanning, and magnetic resonance imaging (MRI). At this time, laboratory tests are not a reliable diagnostic strategy for depression.

Once a clinical depression (or a subclinical depression) is identified, there are at least four general classes of treatment options available. These options are depend-

ent on the subtype and severity of the depression and include psychopharmacology (drug therapy), individual and group psychotherapy, light therapy, family therapy, electroconvulsive therapy (ECT), and other less traditional treatments. These treatment options can be provided to the patient as part of an outpatient program or, in certain severe cases of clinical depression in which the person is a danger to himself/herself or others, as part of a hospitalization.

Clinical depression often affects the patient physically, emotionally, and socially. Therefore, prior to beginning any treatment with a clinically depressed individual, the health care provider will attempt to develop an open and communicative relationship with the patient. This relationship will allow the health care provider to provide patient education on the illness and to solicit the collaboration of the patient in treatment. Supportiveness, understanding, and collaboration are all necessary components of any treatment approach.

Three primary types of medications are used in the treatment of clinical depression: cyclic antidepressants, monoamine oxidase inhibitors (MAOIs), and lithium salts. These medications are considered equally effective in decreasing the symptoms of depression, which begin to resolve in three to four weeks after initiating treatment. The health care professional will select an antidepressant based on side effects, dosing convenience (once daily versus three times a day), and cost.

The cyclic antidepressants are the largest class of antidepressant medications. As the name implies, the chemical makeup of the medication contains chemical rings, or "cycles." There are unicyclic (buproprion and fluoxetine, or Prozac), bicyclic (sertraline and trazodone), tricyclic (amitriptyline, desipramine, and nortriptyline), and tetracyclic (maprotiline) antidepressants. These antidepressants function to either block the reuptake of neurotransmitters by the neurons, allowing more of the neurotransmitter to be available at a receptor site, or increase the amount of neurotransmitter produced. The side effects associated with the cyclic antidepressants—dry mouth, blurred vision, constipation, urinary difficulties, palpitations, and sleep disturbance—vary and can be quite problematic. Some of these antidepressants have deadly toxic effects at high levels, so they are not prescribed to patients who are at risk of suicide.

Monoamine oxidase inhibitors (MAOIs) (isocarboxazid, phenelzine, and tranylcypromine) are the second class of antidepressants. They function by slowing the production of the enzyme monoamine oxidase. This enzyme is responsible for breaking down the neurotransmitters norepinephrine and serotonin, which are believed to be responsible for depression. By slowing the decomposition of these transmitters, more of them are available to the receptors for a longer period of time. Restlessness, dizziness, weight gain, insomnia, and sexual dysfunction are common side effects of the MAOIs. MAOIs are most notable because of the dangerous adverse reaction (severely high blood pressure) that can occur if the patient consumes large quantities of foods high in tyramine (such as aged cheeses, fermented sausages, red wine, foods with a heavy yeast content, and pickled fish). Because of this potentially dangerous reaction, MAOIs are not usually the first choice of medication and are more commonly reserved for depressed patients who do not respond to the cyclic antidepressants.

A third class of medication used in the treatment of depressive disorders consists of the mood stabilizers, the most notable being lithium carbonate, which is used primarily for bipolar disorder. Lithium is a chemical salt that is believed to effect mood stabilization by influencing the production, storage, release, and reuptake of certain neurotransmitters. It is particularly useful in stabilizing and preventing manic episodes and preventing depressive episodes in patients with bipolar disorder.

Another drug occasionally used in the treatment of depression is alprazolam, a muscle relaxant benzodiazepine commonly used in the treatment of anxiety. Alprazolam is believed to affect the nervous system by decreasing the sensitivity of neuronal receptors believed to be involved in depression. While this may in fact occur, the more likely explanation for its positive effect for some patients is that it reduces the anxiety or irritability often coexisting with depression in certain patients.

Psychotherapy refers to a number of different treatment techniques used to deal with the psychosocial contributors and consequences of clinical depression. Psychotherapy is a common supplement to drug therapy. In psychotherapy, the patients develop knowledge and insight into the causes and treatment for their clinical depression. In cognitive psychotherapy, cure comes from assisting patients in modifying maladaptive, irrational, or automatic beliefs that can lead to clinical depression. In behavioral psychotherapy, patients modify their environment such that social or personal rewards are more forthcoming. This process might involve being more assertive, reducing isolation by becoming more socially active, increasing physical activities or exercise, or learning relaxation techniques. Research on the effectiveness of these and other psychotherapy techniques indicates that psychotherapy is as effective as certain antidepressants for many patients and, in combination with certain medications, is more effective than either treatment alone.

Electroconvulsive (or "shock") therapy is the single most effective treatment for severe and persistent depression. If the clinically depressed patient fails to respond to medications or psychotherapy and the depression is life-threatening, electroconvulsive therapy is considered. It is also considered if the patient cannot physically tolerate antidepressants, as with elders who have other medical conditions. This therapy involves inducing a seizure in the patient by administering an electrical current to specific parts of the brain. The therapy is quite sophisticated and safe, involving little risk to the patient. Patients undergo six to twelve treatments over a two-day to five-day period. Some temporary memory impairment is a common side effect of this treatment.

A variant of clinical depression is known as seasonal affective disorder. Patients with this illness demonstrate a pattern of clinical depression during the winter, when there is a reduction in the amount of daylight hours. For these patients, phototherapy has proven effective. Phototherapy, or light therapy, involves exposing patients to bright light (greater than or equal to 2,500 lux) for two hours daily during the depression episode. The manner in which this treatment approach modifies the depression is unclear and awaits further research.

Psychosurgery, the final treatment option, is quite rare. It refers to surgical removal or destruction of certain portions of the brain believed to be responsible for causing severe depression. Psychosurgery is used only after all treatment options have failed and the clinical depression is life-threatening. Approximately 50 percent of patients who undergo psychosurgery benefit from the procedure.

Perspective and Prospects

Depression, or the more historical term "melancholy," has had a history predating modern medicine. Writings from the time of the ancient Greek physician Hippocrates refer to patients with a symptom complex similar to the present-day definition of clinical depression.

Major depressive episodes and the various subtypes of depression are the leading psychiatric diagnoses treated by health care professionals. Prevalence rates from large-scale studies of depression suggest that approximately 1 in 20 adults will meet the criteria for a major depressive episode at some point in their lives; 1 in 100 for bipolar disorder; 1 in 33 for dysthymia; and 1 in 100 for cyclothymia.

The rates of clinical depression have increased since the early twentieth century, while the age of onset of clinical depression has decreased. Women appear to be at least twice as likely as men to suffer from clinical depression, and people who are happily married have a lower risk for clinical depression than those who are separated, divorced, or dissatisfied in their marital relationship. These data, along with recurrence rates of 50 to 70 percent, indicate the importance of this psychiatric disorder.

While most psychiatric disorders are nonfatal, clinical depression can lead to death. Of the approximately 30,000 suicide deaths per year in the United States, 40 to 80 percent are believed to be related to depression. Approximately 15 percent of patients with major depressive disorder will die by suicide. There are, however, other costs of clinical depression. In the United States, billions of dollars are spent on clinical depression, divided among the following areas: treatment, suicide, and absenteeism (the largest). Clinical depression obviously has a significant economic impact on a society.

The future of clinical depression lies in early identification and treatment. Identification will involve two areas. The first is improving the social awareness of mental health issues to include clinical depression. By eliminating the negative social stigma associated with mental illness and mental health treatment, there will be an increased level of the reporting of depression symptoms and thereby an improved opportunity for early intervention, preventing the progression of the disorder to the point of suicide. The second approach to identification involves the development of reliable assessment strategies for clinical depression. Data suggest that the majority of those who commit suicide see a physician within thirty days of the suicide. The field will continue to strive to identify biological markers and other methods to predict and/or identify clinical depression more accurately. Treatment advances will focus on further development of pharmacological strategies and drugs with more specific actions and fewer side effects. Adjuncts to traditional drug therapies need continued development and refinement to maximize the success of integrated treatments.

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updated by Nancy A. Piotrowski

See also:

Anxiety Disorders; Child and Adolescent Psychiatry; Dementia; Eating Disorders; Electroconvulsive Therapy; Geriatric Psychiatry; Grief and Guilt; Hypochondriasis, Conversion, Somatization, and Somatoform Pain; Manic-Depressive Disorder; Midlife Crises; Obsessive-Compulsive Disorder; Paranoia; Phobias; Psychoanalysis; Psychosomatic Disorders; Stress; Suicide.

Diagnosis and Classification

Type of psychology: Psychopathology
Fields of study: Personality assessment; schizophrenia; stress and illness

The standard system of diagnosis and classification of psychological and emotional disorders utilizes the DSM-IV, the fourth edition of the Diagnostic and Statistical Manual of Mental Disorders *of the American Psychiatric Association. Mental health workers in the United States use this system of communication for insurance purposes, treatment recommendations, and overall assessment and research.*

Principal terms

CLUSTER ANALYSIS: analysis that involves the grouping of variables that explain the same event

CRITERIA: specific behavioral, cognitive, emotional, social, or physical components of disorders that must be met in order to render a diagnosis

FACTOR ANALYSIS: the statistical procedure of determining the key factors that describe a given event

MENTAL DISORDERS: a pattern of clinically significant behavioral or psychological problems associated with distress, disability, or increased risk of suffering pain, death, or loss of freedom.

NEUROLOGICAL PROBLEMS: problems that are the result of brain or central-nervous-system damage

SUICIDAL IDEATION: thoughts and ideas that revolve around the act of suicide

VALIDITY: a statistical value that tells the degree to which a test measures what it is intended to measure; the test is usually compared to external criteria

Overview

Nearly all mental health workers in the United States employ the same system for making psychological and psychiatric diagnoses. This system, which was established by the American Psychiatric Association, is called the *Diagnostic and Statistical Manual of Mental Disorders* (4th ed., 1994, DSM-IV). This manual was coordinated with an international diagnostic system that was established by the World Health Organization and published in the *Manual of the International Statistical Classification of Diseases, Injuries, and Causes of Death* (10th ed., 1992). This coordination of diagnoses permits researchers to investigate whether some disorders are more prevalent in certain areas and whether some disorders are virtually nonexistent in certain countries or ethnic groups.

DSM-IV is a multiaxial classification system; that is, a patient is diagnosed on a series of relevant axes that examine various aspects of the patient's functioning. This classification system consists of five axes. Axis 1 requires the diagnostician

to indicate the major disorder of the patient. This refers to the set of symptoms that best describes the patient's problems. There are sixteen categories of disorders listed under axis 1. There is one category that is not attributed to mental disorders but for which people may seek help, such as marital problems, parent-child problems, and academic or vocational problems. Generally, however, axis 1 reflects serious disorders that require treatment, such as anxiety disorders, sexual disorders, mood disorders, substance-abuse disorders, schizophrenia, dissociative disorders, delirium, dementia, and amnesiac disorders, and disorders first evidenced in infancy, childhood, and adolescence (excluding mental retardation). In order for a person to be diagnosed under axis 1, the patient must exhibit a required number of symptoms for specific periods of time. The presence of a minimum number of symptoms or criteria for each disorder ensures that all diagnosticians rate the same disorder in the same way.

Axis 2 includes personality disorders and mental retardation. Personality disorders refer to long-standing maladaptive behaviors that lead to difficulty in social or occupational functioning. Often, individuals who suffer from personality disorders exhibit behavior that makes it difficult for them to function effectively under ordinary circumstances. When such persons tend to resist treatment, their pattern of adjustment tends to become progressively worse.

Axis 3 requires the clinician to indicate any physical disorders that the patient may have or conditions that may be relevant to the management or treatment of the case, such as neurological problems or diabetes or any physical condition that could affect the patient's treatment.

Axis 4 refers to the severity of any psychosocial or environmental stress that might affect the diagnosis, treatment, or prognosis. The clinician is asked to list these stresses. Examples of stress are marital separation, the loss of a job, or the the death of a spouse or a child. With children or adolescents, psychosocial stressors take on a different perspective. For example, stress might involve the divorce of parents, an arrest by the police, sexual or physical abuse, or the death of a parent. The death of both parents or the development of a life-threatening illness such as leukemia also would be considered major stress for children and adolescents.

Axis 5 is called "Global Assessment of Functioning" (GAF). This axis allows the clinician to indicate an overall judgment of the patient's psychological, social, and occupational functioning during the past year. The GAF scale is viewed as a hypothetical scale of mental health and illness. It ranges from 0 to 100. A zero indicates that the rater did not have enough information to make a judgment. A ranking at the end of the scale near the value of 1 reflects the presence of a serious psychological disorder as a result of which the person is dangerous either to himself or herself or to others. The high end of the scale reflects the absence of symptoms or the presence of very minimal symptoms; in other words, it indicates a person who is functioning well in daily life.

This classification system is a noticeable improvement over those of previous diagnostic manuals. The format of five axes allows clinicians to describe more accurately the symptoms and syndromes the patient is expressing. It also allows the clinician to indicate several diagnoses for the same patient if they happen to

coexist. For example, while the patient may be principally exhibiting a depressed mode, he or she may also be experiencing a personality disorder. This system allows for a broader perspective on the patient's functioning, since multiple diagnoses may be made.

Characteristically, the clinician will assess the patient on all five axes. These are all viewed as the important clinical axes. The last two, however, are often used for research purposes. These axes, which provide for background information on the patient, are useful as a means of collecting information about situations and stresses that may contribute to and sustain some disorders. They also provide clinicians with a way to index progress or deterioration during treatment.

Users of this system have indicated its advantages and disadvantages. Those who see its advantages point out that such a system is important in facilitating communication between professional persons. They also note that it is useful for statistical purposes, since it tracks the incidence of disorders nationally and internationally. Such a system can contribute to the planning for a patient's treatment if what the patient is experiencing is known. In addition, using specific diagnostic criteria that match a clear list of symptoms with a client's behavior increases the accuracy and reliability of the diagnosis.

Critics of the system point out that this is basically a medical approach to classification and diagnosis rather than a psychological approach. They point out that the medical model that looks for symptoms leading to treatment may not be accurate or applicable to psychological disorders. Many emotional problems show the same symptoms but emerge from different causes, often requiring very different forms of treatment.

A second criticism involves the question of the reliability and validity of the diagnosis. Reliability refers to whether clinicians viewing the same patient would arrive at the same diagnosis. While the reliability of this system is substantially better than the reliability of systems described in prior manuals, there is still some question about the reliability of the diagnosis when judging axis 2. Finally, some criticize this system for providing no explanations for why the disorders exist. The system simply lists symptoms and behaviors without attempting to explain the cause or the reasons for their existence. These critics believe that the system is much too descriptive, providing little explanation for the existence of the disorder itself. Others see this as a prime strength, however, as it allows for these problems to be investigated from a variety of different theoretical perspectives.

Applications

Since it was first devised in 1952, the *Diagnostic and Statistical Manual of Mental Disorders* has become an important part of the diagnostic process for most mental health workers. This is partly because almost all insurance companies require the diagnosis of a patient's illness before payment is made for services, and the DSM-IV system has been widely accepted. The following example will illustrate the way in which clinicians translate a case study into the multiaxial system.

This is the case of a twenty-five-year-old male who came to the clinic complaining about depression, sadness, suicidal thoughts, and a general sense of hopeless-

ness. He was born and reared in a large city on the East Coast. His mother was a caring, affectionate woman who nurtured her four children, but his father was a chronic alcoholic who verbally and physically abused his wife and children. The patient, the oldest boy in the family, was made to feel responsible for everything that went wrong.

At age seventeen, he left home and moved to California, where he had hoped the stress of life would be diminished. He found himself drinking heavily, using drugs excessively, and slowly drifting into a life of homelessness. He tried several times to obtain a job but was refused because of his disheveled appearance. In his wandering, he met a girl who shared his life of alcohol and drugs. This relationship, while superficial, was the only meaningful adult relationship that the patient had. They had traveled together for several years when, without much explanation, his girlfriend committed suicide. At this time, the patient's depression and despair became more severe, and his alcohol problems increased significantly. Two weeks after this event, he was admitted to a mental health clinic for attempting to slash his wrists after being arrested for alcohol intoxication. The mental health worker who conducted the initial interview produced the following diagnoses.

On axis 1, the clinician diagnosed "Major Depressive Disorder, single episode, severe, without psychotic features," "Alcohol Intoxication," and "Alcohol Dependence." The clinician observed some significant symptoms lasting more than two weeks that are characteristic of major depression, even when the client was not intoxicated: a depressed mood most of the day nearly every day; a marked diminished interest in any activities during the day; a significant weight loss and decrease in appetite; feelings of worthlessness and guilt, particularly over the death of the girlfriend; and recurrent thoughts of death, as well as a suicide attempt. Since this patient also had alcohol problems for more than a year (consisting of tolerance of alcohol, withdrawal when he stopped drinking, and an inability to quit despite a strong desire to quit), he was also diagnosed on axis 1 with alcohol dependence. The diagnosis of alcohol intoxication characterized his presentation when he arrived at the treatment unit. No diagnosis was made on axis 2 or on axis 3. On axis 4, the clinician found "Psychological Stressors." The death of the man's girlfriend by suicide was judged to be a significant stressor.

On axis 5, the current "Global Assessment of Functioning" was rated 10 because of the persistent danger of the patient committing suicide. The clinician was also asked to estimate the highest global assessment of functioning during the past year. Prior to the suicide attempt of his girlfriend, the patient was judged to be functioning at 50. This reflected the fact that there was suicidal ideation and that it was difficult for this young man to find and keep a job for any long period of time.

This illustrates the manner in which clinicians report information after taking a thorough history and often doing considerable psychological testing to determine the assets and liabilities of the patient's functioning at the moment.

Perspective and Prospects

Prior to 1952, there was no systematic procedure for establishing diagnosis and classification. Clinics and hospitals devised systems that were unique to their own

settings and often to their own communities. It was difficult for professionals to communicate with one another when a patient went from one setting to another or from one therapist to another.

It was not until 1952 that the American Psychiatric Association published its first manual, the *Diagnostic and Statistical Manual of Mental Disorders*, which attempted to define all the known psychological and psychiatric disorders. It encouraged all mental health workers to use the same terminology and the same description of disorders so that statistical data could be accumulated on the incidence of mental health disorders in various communities and states. That early manual achieved the purpose of standardizing diagnostic terms, but it had shortcomings; for example, it had no section for children or adolescents. The manual assumed that only adult disorders were diagnosable. Additionally, the manual made assumptions about the origins of disorders on the basis of only one theory: psychoanalytic theory. Since most psychiatrists at that time were psychoanalytically oriented, the manual reflected their theoretical bias in its description of some of the major disorders.

In 1968, the second revision of the *Diagnostic and Statistical Manual of Mental Disorders*, DSM-II, was published. In this version, many disorders that had been omitted from the first volume were added. A new section—"Behavior Disorders of Childhood and Adolescence," which listed six disorders—was added. While this was a notable improvement on the prior volume, it certainly did not reflect a comprehensive understanding of disorders in children or adolescents.

In 1980, the third version of the diagnostic manual, DSM-III, was published; a complete revision was made. This manual was more complete than the previous one; it added many more disorders that were not present in the previous volume and omitted those disorders that were duplicated or extremely rare. This volume also altered its theoretical perspective by attempting to describe behaviors rather than to explain them. No theoretical assumptions were made regarding the cause of the disorders. The clinician was to match the list of symptoms with the disorder. This volume used more precise language, increased its coverage, and introduced the multiaxial classification system that was described above. It also made a significant attempt to coordinate the manual with the International Classification of Diseases, a system adopted by the World Health Assembly of the World Health Organization, thus allowing statistical comparisons to be made between different countries and different parts of the world.

In 1980, the third, revised edition was published. It built upon the strengths of DSM-III by being somewhat more dimensional, not discussing disorders just as categories, but also in terms of severity. It also incorporated research findings derived from the categories listed in DSM-III and advanced a wide variety of disorders in terms of making them more specifically defined. Another prime improvement in DSM-III-R was that the text avoided labeling people and instead labeled disorders. So, rather than discussing "schizophrenics" or "alcoholics," the text referred to individuals with schizophrenia or individuals with alcohol dependence.

The publication of DSM-IV in 1994, however, marked a significant advance.

The emphasis of severity within diagnostic categories received much more attention. A section was also added defining criteria sets for further study, consisting of disorders that are not yet in the classification, but need to be researched further. These include conditions such as passive-aggressive personality disorder, depressive personality disorder, postconcussional disorder, premenstrual dysphoric disorder, and mild neurocognitive disorder. Additionally, several new axes were proposed to describe better psychological defenses and specific functioning in relationships and social and occupational roles. DSM-IV also has a special section on cultural issues (Appendix I). This provides an outline of cultural issues to be noticed in assessment and treatment in diverse ethnic and cultural settings. Additionally, a variety of culture-bound syndromes are described. These are syndromes that appear only in certain cultures.

As the diagnostic field advances, clinical psychology is taking more of a role in the establishment of the diagnosis and classification of psychological disorders. This perspective is based on a psychological rather than a medical model. Its starting point is the assumption that measured behavior determines the description of a syndrome. Such measured characteristics are obtained by means of rating scales or tests. Using a statistical procedure called cluster analysis or factor analysis, one reduces the largest number of variables into the smallest number of categories that are distinctly different from one another. These categories are viewed as different diagnostic states. This procedure increases the reliability of the measurement and the validity of the diagnosis. It also allows for the establishment of a direct relationship between the diagnosis of the clinician and the data from which that diagnosis is obtained. The American Psychological Association has discussed ways of proceeding with the establishment of such a system of classification. As such, it is likely that collaborative efforts between psychologists and psychiatrists will continue to improve the DSM system.

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See also:

Abnormality: Behavioral Models; Abnormality: Biomedical Models; Abnormality: Psychodynamic Models; Anxiety Disorders; Depression; Manic-Depressive Disorder; Schizophrenia.

DIVORCE AND SEPARATION
Adult Issues

Type of psychology: Developmental psychology
Fields of study: Adulthood; coping; interpersonal relations

Divorce results in serious psychological and economic consequences for parents and children; adults must confront feelings of anger, loss, and alienation. They need to create new lives, with different social and economic realities, and must often approach relationships with their children in new ways.

Principal terms

CUSTODIAL PARENT: the parent with physical custody—the parent with whom the child normally lives

DIVORCE MEDIATION: mediation of the terms of divorce by a mental health professional or a team composed of such a professional and an attorney

INVOLUNTARY CHILD-ABSENCE SYNDROME: a pattern of depression and anger shown by fathers who are out of touch with their children

JOINT LEGAL CUSTODY: an arrangement in which each parent has the right to provide input on major decisions affecting the child but only one has physical custody

JOINT PHYSICAL CUSTODY: an arrangement in which each parent has significant time living with the child, who usually moves between homes; the time with each parent does not have to be exactly equal

NONCUSTODIAL PARENT: the parent who has only visitation rights to see the child and the obligation to pay child support

SOLE CUSTODY: all rights to make decisions, to have physical custody of a child, and to receive support on the behalf of the child; the noncustodial parent may get visitation rights and owes support

Overview

Once it was believed that traumatic events, such as earthquakes or divorce, would cause shock followed by quick and complete recovery. Studies of people exposed to natural disasters, however, have shown that recovery is a process with acute followed by chronic stages. The sequence is called post-traumatic stress disorder (PTSD). The acute stage is marked by denial, defensive reactions, and passivity. Cognitive integration, realism, and active adjustment mark the chronic stage. Reactions to divorce follow this pattern. Divorce is not one event, but a continuum beginning in an unhappy marriage and continuing for many years. Divorce is a catalyst for change, but many factors influence which choices will be available. Rage is almost inevitable, and it can serve as a defense against depression. Divorce is the only major interpersonal crisis with a high probability of violence.

Judith Wallerstein and Sandra Blakeslee in 1989 proposed a stage model for

divorce in their book *Second Chances*. Their three stages are an acute stage, a transitional stage, and a stage of renewed stability. Escalating unhappiness ends with the divorce decision and ejection of one parent from the home. In the acute stage, divorce unleashes primitive impulses, sometimes including violence, often in front of the children. People act in odd ways, and parental affairs frighten children.

Women are almost twice as likely to have initiated the divorce, are more likely to believe it is justified, and adjust better initially. Many experience euphoria at escaping and defensively deny real problems, anxieties, inadequate skills, and the chaos in their homes. Women first tend to be more independent, and men more likely to attempt reconciliation. More women feel that they control the divorce; men feel controlled by their external situations.

During the transitional stage, the divorced persons make efforts to solve problems and develop new lifestyles through trial and error. Families are unstable; there are new lovers and friends. In the renewed stability stage, cognitive restructuring that reflects postdivorce reality occurs, allowing major changes in parenting, social, and occupational behaviors. Self-esteem often drops. The differences in adjustment favoring women decrease. Ten years after divorce, almost half of women and about one-third of men remain very angry and feel exploited and rejected.

Adjustment during this stage depends on the resources available compared with the needs that must be met. Women tend to have more social resources, but men tend to have more financial resources. Women who are divorced by their early thirties are often energized, and 70 percent remarry. Assertive women tend to do well; maintaining a low-conflict relationship with the former husband predicts physical and emotional health.

According to Wallerstein and Blakeslee's research, women have a difficult job maintaining both parenting and economic support. Child support is a constant source of tension and conflict. Women in their late thirties and older are often immobilized by anger, depression, and helplessness. Many work hard at low-paying jobs and gain little; many women believe that eligible men are too hard to find and give up. Few older women studied by Wallerstein and Blakeslee explored new second chances. They involved themselves in clubs, friends, and churches but remained lonely and missed their marriage roles. They tended to become dependent on their children, and they had more physical complaints.

Many men who are divorced in their twenties stop maturing; most fail in second marriages. Of those studied by Wallerstein and Blakeslee, half had no stable careers five years after the divorce. Fewer than a third paid full child support, and most saw their children rarely, if at all. Most of their social contacts were with dates or male friends. Most took the blame for their failed marriages; older men more than older women had regrets, accepted responsibility, and did not remarry. Having visitation rights was experienced as being far inferior to watching their children grow up day by day, and many men had little life except their work.

More than half of divorced fathers eventually lose close contact with their children. When a custodial parent uses the children against the noncustodial parent,

the children may become hostile toward the "out" parent. The majority of divorced fathers show the involuntary child-absence syndrome characterized by depression, anxiety, physical symptoms, and anger.

Joint physical custody, usually simply called joint custody, means that both parents share significant time with the children. This solves some problems but produces new ones. Most states reduce child-support payments with joint custody, although some of a parent's costs continue even when the child is with the other parent. Joint custody requires the continuation of stressful adjustments. More joint physical custody fathers stay involved with their children, pay more support, and talk with the mothers, yet the communication is too often hostile, and some fathers do become violent. Joint legal custody means that both parents can share important decisions. The child lives with one parent, and the other has visitation rights. Joint legal custody can ease a father's feelings of powerlessness about his children. This is beneficial both emotionally and economically, because fathers will be more likely to stop disapproving of the divorce and more likely to pay child support. More joint legal custody fathers continue parenting; they also start fewer court battles.

Many adults, especially women, ultimately grow in competence and self-esteem after a divorce. People with histories of talent, marketable skills, and social networks do best; the person filing the divorce petition is more likely to be happy and more social. The most consistent winners are well-established men in their thirties and forties. All the men in Wallerstein and Blakeslee's studies who initiated divorce had another, usually younger, woman waiting. The best predictor of good adjustment was a successful second marriage. These men knew they wanted, and found, women they believed to be less critical, sexier, or more responsive. Once remarried, they developed community ties and more friendships than unmarried men. Many did well as parents of a new set of children.

Lenore Weitzman has critiqued joint custody and no-fault divorce as impoverishing mothers. Many women experience a sharp drop in their standard of living immediately after divorce, but do better with a few years. Unmarried mothers with custody have, on average, about half the earnings of single-father households. The average child-support payments made (by those men who do pay) represent about half the cost of rearing each child. Fewer than half of divorced women receive full payments. Fathers are unlikely to pay for college, and most focus on legal duties—not on the children's needs.

Remarriage often improves a divorced woman's economic condition, and it may increase the happiness and economic status of a single parent of either sex. Remarriages tend to be fragile, however, and the divorce rates higher. The failure of a second marriage produces more trauma than a first failure. Fathers who marry mothers with children encounter financial burdens. Unless parents bringing children to a remarriage make a special effort to create a significant legitimate role for a stepparent, the stepparent often feels like an outsider.

Applications

Research on the effects of divorce shows that the effects are often harmful and may last a lifetime. Sometimes they may even last over generations; the children of

divorce who witnessed physical abuse at home are much more likely to be abusive or to be abused. Problems are created that need to be addressed by family therapy and other interventions.

Stage models of divorce adjustment have important implications for family therapy. Clinicians must evaluate the amount of time elapsed since the beginning of the divorce process when judging the appropriateness of a divorcing or divorced client's reactions. Because early reactions to divorce are so different from long-term reactions, therapists should be careful about assuming that a happy client will continue doing well. Women surveyed soon after divorce may have good emotional health, unless they are victims of violence, despite problems with social support and finances. This good adjustment, however, can gradually deteriorate in the face of unpleasant realities.

Single-parent families make the poorest transition; they are more vulnerable, and have few economic and social resources. Women's self-esteem drops as stress and fear of being alone continue. Men may cope with feelings of helplessness by having distorted and abnormally negative perceptions of their former wives. The need for counseling services may be even greater after a divorce than before or during the divorce. Fifty-five percent of divorced adults and 60 percent of adults divorced after a second marriage seek counseling. There is no significant difference between male and female readiness to seek professional help.

Father dropout is infrequent for fathers who have joint custody (and who were involved with the children before the separation), but joint custody is not a magic solution to the problems of the children or parents of divorce. High levels of conflict between former spouses correlate with poor adjustment of parents and children. Since the legal adversary system often promotes conflict, more use should be made of nonadversary procedures such as mediation of disputes to reduce continuing conflict between parents. Mediators help resolve disputes by acting as referees and information sources. The variables that determine whether mediation will be successful must be explored. When divorcing parents are each uncritically supported by an attorney of their own sex, a voluntary settlement is less likely. Interventions with divorcing families and their children need to address distorted attributions and perceptions that result from a flawed cognitive restructuring process as well as personal and environmental factors.

There needs to be greater understanding about the psychological issues that underlie the inadequate parenting provided by noncustodial parents, mainly fathers. The quality of parenting by a father before divorce does not accurately predict postdivorce parenting. The present system of forcing fathers to pay support without receiving some compensating right or benefit has resulted in withdrawn fathers. Visitation needs to be designed to meet the needs of both children and fathers or it fails in its essential purpose. The legal system's response to the feminization of poverty—using more force to make men pay more—motivates more fathers to contest custody and creates lasting bad feelings. Even those fathers who do pay support rarely pay for college once the court order expires. The children of divorce underachieve relative to their parents and their peers from intact homes.

Divorce makes women feel powerless because of the financial and emotional costs of rearing children. It makes men feel powerless because they face the loss of power in their relationships with their children. Moreover, many men face the prospect of having a large part of their salary support not only their children but also the woman who has made it difficult to continue to be a parent. Custodial mothers need more money; noncustodial fathers need easier and more rewarding access to their children. Children need to be in real relationships with both parents.

Research on divorce and its effects suggests many changes that could be made in how divorce is handled and in how families can best approach life after divorce. Among the things that are needed are reasonable support orders, with strict enforcement as well as a sharing of parental power. Moderately priced and high-quality day care services are needed; more mental health professionals are needed to work in mediation, family services, and private practice to help divorced parents reduce conflict and avoid focusing on blame and power.

About 12 percent of parents become or remain friends after divorce. An additional 38 percent manage to cooperate by considering the child or children first instead of attempting to win a power struggle with the other parent. Few "friends after divorce" remain friends after one partner enters a new stable relationship, but they usually continue to cooperate. New female partners are more likely to be threatened by a former spouse and create problems in the coparenting arrangement. The new partners in the process should be recognized and involved. Further study is needed on how to encourage cooperation between former spouses to create healthier "binuclear" families for the estimated one in three children who will grow up with stepparents.

Perspective and Prospects

Longitudinal research on the process of divorce is a relatively recent area of psychology. The historical impetus was the adoption by all states of some form of no-fault divorce, beginning in California in 1970. No-fault divorce contributed to a great increase in divorces—to a level of one divorce for every two marriages, a rate double that of most countries. The explosion in the number of people undergoing divorce made their experiences a desirable area for large-scale research. Divorce research has origins in sociology, social psychology, clinical psychology, and developmental psychology. The results have been surprising and disturbing, with implications for cognitive psychology, stress theory, and personality theories.

The traditional view of divorce was that it was a one-time traumatic event with a few aftereffects. Both the public and psychologists believed that ties between the parents of children should be cut to allow stepfathers to replace former husbands more easily. It is now known that the effects of separation and divorce act much like other severe traumas and produce a prolonged post-traumatic stress disorder. Stage models of divorce, and Wallerstein and others' research results, have shown that recovery is often very slow, if indeed it occurs at all. Children have a continued need for close contacts with biological fathers, and fathers suffer from the loss of parenting experiences. Clinical problems persist in a very large percentage of the divorced, and these problems relate to the lack of critical resources.

Psychologists once thought that human development ended after adolescence. Now it is known that people continue to grow and change throughout their lives. Maturation can be stunted by the absence of healthy family structures; full social maturation of men requires parenting experiences. Theories of child development are mainly based on observations of intact two-parent families. Finally, the psychology of personality variables and cognitive learning may be altered by recent research on the long-term effects of divorce. Perceptions of the locus of control in the divorced person shifts as real power to control events changes. Cognitive restructuring in stressful situations may be adaptive and protective, but the tendency of divorced men to devalue their former mates severely can be mean-spirited and harmful. Understanding the cognitive mechanisms operating in this behavior will help in coping with severe stress.

The implications of divorce are important and pervasive. About 15 million children are growing up in single-parent homes, and 10 million in homes with a stepparent. Predictions from early research are that about a third of them will be seriously disturbed, depressed, poorly motivated, or easily defeated by rejections and losses. Large numbers of older divorced women are living alone in poverty. Millions of young men remain fixated at an immature level of development, preoccupied with dating and working but disconnected from future generations.

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Leland C. Swenson

See also:

Couples Therapy; Depression; Divorce and Separation: Children's Issues; Midlife Crises; Stress.

DIVORCE AND SEPARATION
Children's Issues

Type of psychology: Developmental psychology
Fields of study: Adolescence; coping; infancy and childhood; psychodynamic and neoanalytic models

Research on divorce and separation has provided insight into how this event affects family life and child development. Understanding the consequences of divorce-related issues for children has permitted the refinement of methods to prevent or relieve the emotional distress associated with family breakup.

Principal terms

CUSTODIAL PARENT: as decided by the court, the parent with whom a child lives after a divorce

DISPLACEMENT COMMUNICATION: a method of indirect communication that uses an object or fictional character to represent the action and thoughts of the person to whom one is talking

EGO DEFENSE MECHANISMS: unconscious and irrational ways in which people distort reality in order to reduce anxiety

EGOCENTRIC THINKING: an intellectual tendency to attribute the cause of events to oneself

ENMESHMENT: an excessively close relationship between parent and child in which adult concerns and needs are communicated and in which overdependence on the child is apparent

REGRESSION: an ego defense mechanism that a person uses to return to an earlier stage of development when experiencing stress

STAGE THEORY OF DEVELOPMENT: the belief that development moves through a set sequence of stages; the quality of behavior at each stage is unique but is dependent upon movement through earlier stages

Overview

Separation and divorce terminate the social and legal contract of marriage and result in the breakup of a family. Divorce can represent the end of emotional suffering and an escape from an abusive environment, and it can provide the potential for personal growth. Conversely, the adult experience of divorce and separation can be devastating. Strong feelings of loss, anxiety, and damage to self-esteem often accompany divorce. Anger, depression, and guilt are also commonly reported. Divorced men are more likely than married men to experience psychiatric problems, serious accidents, and poor health; divorced women frequently experience depression and economic impoverishment.

The trouble that children have in adjusting to divorce has long been acknowledged. Between 30 and 50 percent of children of divorced parents experience

long-lasting problems related to the divorce. Primary symptoms include anger and aggressive behavior, sadness, low self-esteem, depression, and impaired academic performance. Children of divorced parents are also more likely to experience trouble with intimate relationships in adulthood.

Contemporary mental health workers no longer view divorce as a discrete event, but as a process. Neil Kalter takes this view in his book *Growing Up with Divorce: Helping Your Child Avoid Immediate and Later Emotional Problems* (1989). He describes divorce as a three-stage process: the immediate-crisis stage, the short-term aftermath stage, and the long-range period. The help children will require hinges upon which stage the divorce is in, their level of emotional and intellectual development, and their gender.

During the immediate-crisis stage, parents are often enraged. Wounded pride and self-esteem provoke responses ranging from verbal insult to physical violence. Frequently during this initial stage, little regard for the children is apparent, and children react with shock and disbelief. They are frightened, surprised, and saddened by the news that their parents are divorcing. They see that their parents are often short-tempered and occasionally show extreme anger. Conversely, they may see a parent crying, oversleeping, and anxious. During this stage, parents are often inattentive to the needs of their children. When parents show these behaviors, it creates stress for children. There are additional sources of stress for children as well. The rupture of a safe and predictable home environment and the loss of father-presence troubles them. If the parent with whom a child is living is having emotional trouble, enmeshment can represent another source of stress. Enmeshment refers to an excessively close and overdependent relationship between a parent and a child.

As parents and children move into the short-term aftermath stage, the realities of the divorce are better understood. Issues of economic support, custody, and visitation schedules become routine, and with effort, life becomes more predictable. Warfare between parents, however, often proceeds. Children are frequently enlisted as allies, weapons, and messengers in this battle. It is also possible for parents to develop an enmeshed relationship with a child during this stage. Sometimes parents do this unconsciously in an attempt to ward off feelings of loneliness and rejection. The children are counted on for adultlike emotional support as well as help with childrearing and household chores.

Another source of stress to children is the sense that they have lost their parents. The noncustodial parent is often absent in both the psychological and the physical sense. By this time, most children have little or no contact with the noncustodial parent. Since this is likely to be their father, children often lose access to the father-child relationship. This is unfortunate, because the father represents a model of masculine behavior that is important for both genders. The children may also see their mother less frequently. She may be working longer hours, engaging in acquiring additional training, or investing more time in her social life. Dating on the part of the single parent represents a particularly salient source of stress for children, especially older elementary school children and adolescents. Young children fear abandonment, while older children harbor competitive feelings and

resentment toward their parents' dating partners. Older children must also face the reality of their parents' sexuality.

Between two and three years after the divorce, the long-range period begins. A major source of stress for children during this period occurs when parents continue to show open anger toward each other. This happens primarily because one parent is having trouble accepting the divorce. This parent may feel a desperate need for emotional support and entertain a fantasy of reuniting with the former spouse. Alternatively, one parent may feel the need to heap punishment on the other for deciding upon the divorce. This particular source of stress has been found to increase the likelihood that children will develop severe emotional and/or behavioral disorders. Serious—and, if necessary, legal—efforts to put an end to warring between parents must now be made. A second important source of stress to children during the long-range period is remarriage.

The remarriage of a parent is stressful to children of all ages, with the possible exception of infants. Children often view a stepparent as a rival for the time and love of the custodial parent. Younger children may fear abandonment. Loyalty conflicts between the stepparent and the noncustodial parent may exist. Children often become angry because the fantasy that their parents may reunite is shattered. Finally, children frequently become furious when a stepparent takes on the role of a parent. This is particularly true if the stepparent assigns chores and takes on a disciplinary role too quickly. The situation will be especially stressful if new siblings are brought to the marriage, thereby increasing feelings of competition for the time and affection of the custodial parent.

Divorce presents children with myriad external stressors. Older children, because of their expanding intellectual abilities, often create debilitating internal stressors for themselves as well.

Applications

Knowledge gained through study of the divorce process can be used to help children adapt. Examining some of the issues involved in helping children between three and five years of age adjust to divorce will help to illustrate this point. One must understand, however, that reactions to divorce are largely tied to the developmental level of the child.

During the immediate-crisis stage, stressors for preschool children include unpredictable daily routines, warfare between parents, distraught parents, and loss of the father-child relationship. During the short-term aftermath stage, key stressors are fighting between parents, enmeshed relationships, and the loss of the father-child relationship. Stressors in the long-range period include parental warfare, relocations, a distant father-child relationship, and remarriage.

A common symptom indicating a reaction of preschool children to stress is called regression. Regression is an ego defense mechanism. Ego defense mechanisms are ways in which people distort reality in order to reduce stress; regression is evident when a child returns to an earlier stage of development. Regression in sleeping patterns, eating habits, motor achievements, language, toilet training, and emotional independence all signal trouble. For example, a child who was consis-

tently using the toilet may begin to soil and wet himself or herself again. Children may also show a failure to develop psychologically; for example, a child of four may continue to panic when her mother leaves her sight.

In addition to regression, preschool children display the ego defenses of displacement and denial. Displacement is apparent when children show their anger at parents indirectly by becoming uncooperative or by fighting more frequently with other children. Denial is apparent when they simply do not admit that the divorce has taken place, or deny the divorce in fantasy. Preschool children also show a phenomenon known as emotional resonance. They resonate to the anger of their parents, and this results in diffuse feelings of distress. If warring between parents is not controlled, it produces chronic fear and a reluctance to engage in new activities and begin new social relationships.

An intellectual characteristic of preschool children is their tendency to have trouble separating fact from fantasy. They also show egocentric thinking—the tendency to attribute the cause of events to themselves. Consequently, they can create their own stress. For example, they are likely to blame themselves for the divorce, believing that their father left because they were bad. Leaving a child at a day care center may lead her to fear that she is being abandoned because she is no longer loved. In a similar way, relocations and remarriage can spawn egocentric fantasies. Once such fantasies are developed, children believe them.

Preschool children have a more advanced striving for independence from their mothers than younger children. The absence of a father will hamper this progress. Both genders are expanding their social worlds; however, their sense of social and emotional independence is still shaky. They need a safe home-base in order to consolidate their independence. Since children are attempting to establish their independence from their mothers, their fathers provide a good alternative relationship. Further, boys need access to their fathers to nurture their emerging sense of masculine identity. Girls look to their fathers for acceptance of their feminine identity. In males, long-term father absence may produce a reluctance to interact with other boys; in females, it increases the probability of an enmeshed relationship with their mothers. Further, as children become more psychologically distant from their father, they may become angry at being forced to visit him. In addition, they may misunderstand why they must visit. For example, they may believe they are forced to visit because their mother does not care about them or does not want them around. This can produce symptoms of displaced anger, sadness, and withdrawal.

The thrust in helping these children cope is to reduce or eliminate their stress. Several steps are recommended in order to reduce external stress. Efforts should be made to ensure that the child's daily schedule is routine and predictable. Anger between parents should be reduced or eliminated. Professional help should be obtained for a distraught parent. Finally, establishing an effective coparenting relationship is critically important. In this way, the child's divorce environment can be brought in line with his or her needs. Children between the ages of three and five need a predictable, safe, and tranquil environment. Although alleviating sources of external stress is enormously helpful, the stress that children create themselves must also be addressed.

Research shows that discussing the divorce with preschool children before it occurs is helpful. The content of the discussion should be concrete and make clear what the divorce will mean. For example, the child should be told which parent will be moving out, where this parent will be living, and when he or she will see the noncustodial parent. Any changes in daily routine should also be explained. Reasons for the divorce should be explained in age-appropriate terms. The child's role in the divorce should be made clear, and it should be explained that divorce is adult business and that the child had no part in the decision. It should be emphasized that the divorce does not mean that parents will stop loving the child or will love the child any less.

If stress is minimized and the divorce has been clearly explained, chances are much better that post-divorce adjustment will go smoothly. It is, however, still possible, and perhaps likely, that the child will display divorce-related symptoms. If signals of distress occur, they are probably a result of egocentric fantasies. A technique known as displacement communication has been found to be an extremely effective way to reduce or eliminate sources of internal stress; Kalter's book provides several excellent examples of how to apply this approach.

Perspective and Prospects

The study of divorce as it affects family life and child development has long been of concern to psychology. Many works on the subject began to appear in the 1970's, reflecting an increased need for knowledge that corresponded to a rising divorce rate (the rate of divorce tripled between 1960 and 1980). In 1977, the *Journal of Divorce* was founded as a vehicle for the publication of data relating to divorce. This journal publishes interdisciplinary findings on all aspects of divorce—from clinical practice to theory and research. It will be important to persist in accumulating data on divorce-related effects on child development, since projections indicate that divorce rates are expected to continue increasing.

Beginning in the late 1970's, systematic studies of how divorce affects child development began to appear. During this time, the emphasis in research shifted from describing case studies and reporting descriptive statistics to refining existing knowledge of how children perceive and react to divorce. The focus was on understanding specific divorce-related effects on psychological development, and the way in which long-range effects are mediated as a function of developmental level and family relations became a popular area of research. Further, significant gains have been made in understanding how to mediate in the divorce process in order to minimize negative consequences on children.

Contemporary understanding of how divorce affects child development may be viewed as growing out of Erik Erikson's theory of personality development and Jean Piaget's theory of intellectual development. Although some disagreement exists in the details of their perspectives, in general, agreements outweigh disagreements. Both are stage theorists who adhere to the notion that development is not a continuous process. This means that characteristics of personality and intelligence differ in quality as a function of age. These characteristics are so different that they are better described as new features of the person—features that did not exist

before. As stage theorists, Erikson and Piaget adhere to the notion that development unfolds in an invariant sequence of stages. Consequently, success at earlier stages in development is viewed as crucial for success at later stages. Both theorists agree that achievements of emotional and intellectual development depend on biological maturity; that is, biological maturity is necessary to permit a child to benefit, or suffer, from experience. Both theorists would predict that the impact of divorce on a child will depend on the child's developmental level and gender and on the types of experiences to which he or she is exposed.

Data gathered since the 1960's on how divorce affects children lend validity to these perspectives. The notion that development occurs in a stagelike manner and unfolds in an invariant sequence has generally been supported. The notion that early success or failure affects later development has become clear. The tenet that experience interacts with biological maturity to determine outcome has also found strong support in the divorce literature. Furthermore, the stress-related symptoms that children display in attempting to cope with divorce clearly support Erikson's notions about the function of ego defense mechanisms.

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Alan J. Beauchamp

See also:

Behavioral Family Therapy; Child and Adolescent Psychiatry; Depression; Divorce and Separation: Adult Issues; Psychotherapy: Children; Strategic Family Therapy.

DOMESTIC VIOLENCE

Type of psychology: Psychopathology
Fields of study: Adolescence; adulthood; aggression; infancy and childhood; interpersonal relations

Domestic violence is assaultive behavior intended to punish, dominate, or control another in an intimate family relationship. Physicians are often best able to identify situations of domestic violence and assist victims to implement preventive interventions.

Principal terms

CYCLE OF VIOLENCE: a repeating pattern of violence characterized by increasing tension, culminating in violent action, and followed by remorse

FAMILY VIOLENCE: violence against an intimate partner, typically to assert domination, control actions, or punish, which occurs as a pattern of behavior, not as a single, isolated act; also called battering, marital violence, domestic violence, relationship violence, child abuse, or elder abuse

FUNNELING: an interviewing technique for assessing violence in a patient's relationship, beginning with broad questions of relationship conflict and gradually narrowing to focus on specific violent actions

HANDS-OFF VIOLENCE: indirect attacks meant to terrorize or control a victim; may include property or pet destruction, threats, intimidating behavior, verbal abuse, stalking, and monitoring

HANDS-ON VIOLENCE: direct attacks upon the victim's body, including physical and sexual violence; comprises a continuum of acts ranging from seemingly minor to obviously severe

LETHALITY: the potential, given the particular dynamics of violence in a relationship, for one or both partners to be killed

SAFETY PLANNING: the development of a specific set of actions and strategies to enable a victim either to avoid violence altogether or, once violence has begun, to escape and minimize damage and injury

Causes and Symptoms

Domestic or family violence is the intentional use of violence against an intimate partner. The purpose of the violence is to assert domination, to control the victim's actions, or to punish the victim for some actions. Family violence generally occurs as a pattern of behavior over time rather than as a single, isolated act.

Forms of family violence include child physical abuse, child sexual abuse, spousal or partner abuse, and elder abuse. These forms of violence are related, in that they occur within the context of the family unit. Therefore, the victims and perpetrators know one another, are related to one another, may live together, and may love one another. These various forms of violence also differ insofar as victims may be children, adults, or frail, elderly adults. The needs of victims differ with

age and independence, but there are also many similarities between the different types of violence. One such similarity is the relationship between the offender and the victim. Specifically, victims of abuse are always less powerful than abusers. Power includes the ability to exert physical and psychological control over situations. For example, a child abuser has the ability to lock a child in a bathroom or to abandon him or her in a remote area in order to control access to authorities. A spouse abuser has the ability to physically injure a spouse, disconnect the phone, and keep the victim from leaving for help. An elder abuser can exert similar control. Such differences in power between victims and offenders are seen as a primary cause of abuse; that is, people batter others because they can.

Families that are violent are often isolated. The members usually keep to themselves and have few or no friends or relatives with whom they are involved, even if they live in a city. This social isolation prevents victims from seeking help from others and allows the abuser to establish rules for the relationship without answering to anyone for these actions. Abuse continues and worsens because the violence occurs in private, with few consequences for the abuser.

Victims of all forms of family violence share common experiences. In addition to physical violence, victims are also attacked psychologically, being told they are worthless and responsible for the abuse that they receive. Because they are socially isolated, victims do not have an opportunity to take social roles where they can experience success, recognition, or love. As a result, victims often have low self-esteem and truly believe that they cause the violence. Without the experience of being worthwhile, victims often become severely depressed and anxious, and they experience more stress-related illnesses such as headaches, fatigue, or gastrointestinal problems.

Child and partner abuse are linked in several ways. About half of the men who batter their wives also batter their children. Further, women who are battered are more likely to abuse their children than are nonbattered women. Even if a child of a spouse-abusing father is not battered, living in a violent home and observing the father's violence has negative effects. Such children often experience low self-esteem, aggression toward other children, and school problems. Moreover, abused children are more likely to commit violent offenses as adults. Children, especially males, who have observed violence between parents are at increased risk of assaulting their partners as adults. Adult sexual offenders have an increased likelihood of having been sexually abused as children. Yet, while these and other problems are reported more frequently by adults who were abused as children than by adults who were not, many former victims do not become violent. The most common outcomes of childhood abuse in adults are emotional problems. Although much less is known about the relationship between child abuse and future elder abuse, many elder abusers did suffer abuse as children. While most people who have been abused do not themselves become abusers, this intergenerational effect remains a cause for concern.

In its various forms, family violence is a public health epidemic in the United States. Once thought to be rare, family violence occurs with high frequency in the general population. Although exact figures are lacking and domestic violence

tends to be underreported, it is estimated that each year 1.9 million children are physically abused; 250,000 children are sexually molested; 1.6 million women are assaulted by their male partners; and between 500,000 and 2.5 million elders are abused. Rates of violence directed toward unmarried heterosexual women, married heterosexual women, and members of homosexual male and female couples tend to be similar. No one is immune: Victims come from all social classes, races, and religions. Partner violence directed toward heterosexual men, however, is rare and usually occurs in relationships in which the man hits first.

Because family violence is so pervasive, physicians encounter many victims. One out of every three to five women visiting emergency rooms is seeking medical care for injuries related to partner violence. In primary care clinics, including family medicine, internal medicine, and obstetrics and gynecology, one out of every four female patients reports violence in the past year, and two out of five report violence at some time in their lives. It is therefore reasonable to expect all physicians and other health care professionals working in primary care and emergency rooms to provide services for victims of family violence.

Family violence typically consists of a pattern of behavior occurring over time and involving both hands-on and hands-off violence. Hands-on violence consists of direct attacks against the victim's body. Such acts range from pushing, shoving, and restraining to slapping, punching, kicking, clubbing, choking, burning, stabbing, or shooting. Hands-on violence also includes sexual assault, ranging from forced fondling of breasts, buttocks, and genitals; to forced touching of the abuser; to forced intercourse with the abuser or with other people.

Hands-off violence includes physical violence that is not directed at the victim's body but is intended to display destructive power and assert domination and control. Examples include breaking through windows or locked doors, punching holes through walls, smashing objects, destroying personal property, and harming or killing pet animals. The victim is often blamed for this destruction and forced to clean up the mess. Hands-off violence also includes psychological control, coercion, and terror. This includes name calling, threats of violence or abandonment, gestures suggesting the possibility of violence, monitoring of the victim's whereabouts, controlling of resources (such as money, transportation, and property), forced viewing of pornography, sexual exposure, or threatening to contest child custody. These psychological tactics may occur simultaneously with physical assaults or may occur separately. Whatever the pattern of psychological and physical tactics, abusers exert extreme control over their partners.

Neglect—the failure of one person to provide for the basic needs of another dependent person—is another form of hands-off abuse. Neglect may involve failure to provide food, clothing, health care, and shelter. Children, older adults, and developmentally delayed or physically handicapped people are particularly vulnerable to neglect.

Family violence differs in two respects from violence directed at strangers. First, the offender and victim are related and may love each other, live together, share property, have children, and share friends and relatives. Hence, unlike victims of stranger violence, victims of family violence cannot quickly or easily sever ties

with or avoid seeing their assailants. Second, family violence often increases slowly in intensity, progressing until victims feel immobilized, unworthy, and responsible for the violence that is directed toward them. Victims may also feel substantial and well-grounded fear about leaving their abusers or seeking legal help, because they have been threatened or assaulted in the past and may encounter significant difficulty obtaining help to escape. In the case of children, the frail and elderly, or people with disabilities, dependency upon the caregiver and cognitive limitations make escape from an abuser difficult. Remaining in the relationship increases the risk of continued victimization. Understanding this unique context of the violent family can help physicians and other health care providers understand why battered victims often have difficulty admitting abuse or leaving the abuser.

Family violence follows a characteristic cycle. This cycle of violence begins with escalating tension and anger in the abuser. Victims describe a feeling of "walking on eggs." Next comes an outburst of violence. Outbursts of violence sometimes coincide with episodes of alcohol and drug abuse. Following the outburst, the abuser may feel remorse and expect forgiveness. The abuser often demands reconciliation, including sexual interaction. After a period of calm, the abuser again becomes increasingly tense and angry. This cycle generally repeats, with violence becoming increasingly severe. In partner abuse, victims are at greatest risk when there is a transition in the relationship such as pregnancy, divorce, or separation. In the case of elder abuse, risk increases as the elder becomes increasingly dependent on the primary caregiver, who may be inexperienced or unwilling to provide needed assistance. Without active intervention, the abuser rarely stops spontaneously and often becomes more violent.

Treatment and Therapy

Physicians play an important role in stopping family violence by first identifying people who are victims of violence, then taking steps to intervene and help. Physicians use different techniques with each age group because children, adults, and older adults each have special needs and varying abilities to help themselves. This section will first consider the physician's role with children and then will examine the physician's role with adults and older adults.

Because children do not usually tell a physician directly if they are being abused physically or sexually, physicians use several strategies to identify child and adolescent victims. Physicians screen for abuse during regular checkups by asking children if anyone has hurt them, touched them in private places, or scared them. To accomplish this screening with five-year-old patients having a routine checkup, physicians may teach their young patients about private areas of the body; let them know that they can tell a parent, teacher, or doctor if anyone ever touches them in private places; and ask the patients if anyone has ever touched them in a way that they did not like. For fifteen-year-old patients, physicians may screen potential victims by providing information on sexual abuse and date rape, then ask the patients if they have ever experienced either.

A second strategy that physicians use to identify children who are victims of family violence is to remain alert for general signs of distress that may indicate a

child or youth lives in a violent situation. General signs of distress in children, which may be caused by family violence or by other stressors, include depression, anxiety, low self-esteem, hyperactivity, disruptive behaviors, aggressiveness toward other children, and lack of friends.

In addition to general signs of distress, there are certain specific signs and symptoms of physical and sexual abuse in children which indicate that the child has probably been exposed to violence. For example, bruises that look like a handprint, belt mark, or rope burn would indicate abuse. X rays can show a history of broken bones that are suspicious. Intentional burns from hot water, fire, or cigarettes often have a characteristic pattern. Sexually transmitted diseases in the genital, anal, or oral cavity of a child who is aged fourteen or under would suggest sexual abuse.

A physician observing specific signs of abuse or violence in a child, or even suspecting physical or sexual abuse, has an ethical and legal obligation to provide this information to state child protective services. Every state has laws that require physicians to report suspected child abuse. Physicians do not need to find proof of abuse before filing a report. In fact, the physician should never attempt to prove abuse or interview the child in detail because this can interfere with interviews conducted by experts in law, psychology, and the medicine of child abuse. When children are in immediate danger, they may be hospitalized so that they may receive a thorough medical and psychological evaluation while also being removed from the dangerous situation. In addition to filing a report, the physician records all observations in the child's medical chart. This record includes anything that the child or parents said, drawings or photographs of the injury, the physician's professional opinion regarding exposure to violence, and a description of the child abuse report.

The physician's final step is to offer support to the child's family. Families of child victims often have multiple problems, including violence between adults, drug and alcohol abuse, economic problems, and social isolation. Appropriate interventions for promoting safety include foster care for children, court-ordered counseling for one or both parents, and in-home education in parenting skills. The physician's goal, however, is to maintain a nonjudgmental manner while encouraging parental involvement.

Physicians also play a key role in helping victims of partner violence. Like children and adolescents, adult victims will usually not disclose violence. Therefore physicians should screen for partner violence and ask about partner violence whenever they notice specific signs of abuse or general signs of distress. Physicians screen for current and past violence during routine patient visits, such as during initial appointments; school, athletic, and work physicals; premarital exams; obstetrical visits; and regular checkups. General signs of distress include depression, anxiety disorders, low self-esteem, suicidal ideation, drug and alcohol abuse, stress illnesses (headache, stomach problems, chronic pain), or patient comments about a partner being jealous, angry, controlling, or irritable. Specific signs of violence include physical injury consistent with assault, including those requiring emergency treatment.

When a victim reports partner violence, there are five steps that a physician can take to help. Communicating belief and support is the first step. Sometimes abuse is extreme and patient reports may seem incredible. The physician validates the victim's experience by expressing belief in the story and exonerating the patient of blame. The physician can begin this process by making eye contact and telling the victim, "You have a right to be safe and respected" and "No one should be treated this way."

The second step is helping the patient assess danger. This is done by asking about types and severity of violent acts, duration and frequency of violence, and injuries received. Specific factors that seem to increase the risk of death in violent relationships include the abuser's use of drugs and alcohol, threats to kill the victim, and the victim's suicidal ideation or attempts. Finally, the physician should ask if the victim feels safe returning home. With this information, the physician can help the patient assess lethal potential and begin to make appropriate safety plans.

The third step is helping the patient identify resources and make a safety plan. The physician begins this process by simply expressing concern for the victim's safety and providing information about local resources such as mandatory arrest laws, legal advocacy services, and shelters. For patients planning to return to an abusive relationship, the physician should encourage a detailed safety plan by helping the patient identify safe havens with family members, friends, or a shelter; assess escape routes from the residence; make specific plans for dangerous situations or when violence recurs; and gather copies of important papers, money, and extra clothing in a safe place in or out of the home in the event of a quick exit. Before the patient leaves, the physician should give the patient a follow-up appointment within two weeks. This provides the victim with a specific, known resource. Follow-up visits should continue until the victim has developed other supportive resources.

The physician's final step is documentation in the patient's medical chart. This written note includes the victim's report of violence, the physician's own observations of injuries and behavior, assessment of danger, safety planning, and follow-up. This record can be helpful in the event of criminal or civil action taken by the victim against the offender. The medical chart, and all communications with the patient, is kept strictly confidential. Confronting the offender about the abuse can place the victim at risk of further, more severe violence. Improper disclosure can also result in loss of the patient's trust, precluding further opportunities for help.

There are several things that a physician should never do when working with a patient-victim. The physician should not encourage a patient to leave a violent relationship as a first or primary choice. Leaving an abuser is the most dangerous time for victims and should be attempted only with adequate planning and resources. The physician should not recommend couples counseling. Couples counseling endangers victims by raising the victim's expectation that issues can be discussed safely. The abuser often batters the victim after disclosure of sensitive information. Finally, the physician should not overlook violence if the violence appears to be "minor." Seemingly minor acts of aggression can be highly injurious.

Physicians also play an important role in helping adults who are older, develop-

mentally delayed, or physically disabled. People in all three groups experience a high rate of family violence. Each group presents unique challenges for the physician. One common element among all three groups is that the victims may be somewhat dependent upon other adults to meet their basic needs. Because of this dependence, abuse may sometimes take the form of failing to provide basic needs such as adequate food or medical care. In many states, adults who are developmentally delayed are covered by mandatory child abuse reporting laws.

The signs and symptoms of the abuse of elders are similar to the other forms of family violence. These include physical injuries consistent with assault, signs of distress, and neglect, including self-neglect. Elder abuse victims are often reluctant to reveal abuse because of fear of retaliation, abandonment, or institutionalization. Therefore, a key to intervention is coordinating with appropriate social service and allied health agencies to support an elder adequately, either at home or in a care center. Such agencies include aging councils, visiting nurses, home health aids, and respite or adult day care centers. Counseling and assistance for caregivers is also an important part of intervention.

Many states require physicians to report suspected elder abuse. Because many elder abuse victims are mentally competent, however, it is important that they be made part of the decision-making and reporting process. Such collaboration puts needed control in the elder's hands and therefore facilitates healing. Many other aspects of intervention described for partner abuse apply to working with elders, including providing emotional support, assessing danger, safety planning, and documentation.

In addition to helping the victims of acute, ongoing family violence, physicians have an important role to play in helping survivors of past family violence. People who have survived family violence may continue to experience negative effects similar to those experienced by acute victims. Physicians can identify survivors of family violence by screening for past violence during routine exams. A careful history can determine whether the patient has been suffering medical or psychological problems related to the violence. Finally, the physician should identify local resources for the patient, including a mutual help group and a therapist.

Physicians can also help prevent family violence. One avenue of prevention is through education of patients by discussing partner violence with patients at key life transitions, such as during adolescence when youths begin dating, prior to marriage, during pregnancy, and during divorce or separation. A second avenue of prevention is making medical clinic waiting rooms and examination rooms into education centers by displaying educational posters and providing pamphlets.

Perspective and Prospects

Despite its frequency, family violence has not always been viewed as a problem. In the 1800's, it was legal in the United States for a man to beat his wife, or for parents to use brutal physical punishment with children. Although the formation of the New York Society for the Prevention of Cruelty to Children in 1874 signaled rising concern about child maltreatment, the extent of the problem was underestimated. As recently as 1960, family violence was viewed as a rare, aberrant

phenomenon and women who were victims of violence were often seen as partially responsible because of "masochistic tendencies." Several factors combined to turn the tide during the next thirty years. Medical research published in the early 1960's began documenting the severity of the problem of child abuse. By 1968, every state in the United States had passed a law requiring that physicians report suspected child abuse, and many states established child protective services to investigate and protect vulnerable children.

Progress in the battle against partner violence was slower. The battered women's movement brought new attention and a feminist understanding to the widespread and serious nature of partner violence. This growing awareness provided the impetus, during the 1970's and 1980's, for reform in the criminal justice system, scientific research, continued growth of women's shelters, and the development of treatment programs for offenders.

The medical profession's response to partner abuse followed these changes. In 1986, Surgeon General C. Everett Koop declared family violence to be a public health problem and called upon physicians to learn to identify and intervene with victims. In 1992, the American Medical Association (AMA) echoed the Surgeon General and stated that physicians have an ethical obligation to identify and assist victims of partner violence, and it established standards and protocols for identifying and helping victims of family violence. Because partner and elder abuse have been recognized only recently by the medical community, many physicians are just beginning to learn about their essential role.

Family violence has at various times been considered as a social problem, a legal problem, a political problem, and a medical problem. Because of this shifting understanding and because of the grassroots political origins of the child and partner violence movements, some may question why physicians should be involved. There are three compelling reasons.

First, there is a medical need: Family violence is one of the most common causes of injury, illness, and death for women and children. Victims seeking treatment for acute injuries make up a sizable portion of emergency room visits. Even in outpatient clinics, women report high rates of recent and ongoing violence and injury from partners. In addition to physical injuries, many victims experience stress-related medical problems for which they seek medical care. Among obstetrical patients who are battered, there is a risk of injury to both the woman and her unborn child. Hence, physicians working in clinics and emergency rooms will see many people who are victims.

Second, physicians have a stake in breaking the cycle of violence because they are interested in injury prevention and health promotion. When a physician treats a child or adult victim for physical or psychological injury but does not identify root causes, the victim will return to a dangerous situation. Prevention of future injury requires proper diagnosis of root causes, rather than mere treatment of symptoms.

Third, physicians have a stake in treatment of partner violence because it is a professional and ethical obligation. Two principles of medical ethics apply. First, a physician's actions should benefit the patient. Physicians can benefit patients

who are suffering the effects of family violence only if they correctly recognize the root cause and intervene in a sensitive and professional manner. Physicians should also "do no harm." A physician who fails to recognize and treat partner violence will harm the patient by providing inappropriate advice and treatment.

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See also:

Abnormality: Family Models; Addictive Personality and Behaviors; Alcoholism; Antisocial Personality; Borderline, Histrionic, and Narcissistic Personalities; Child Abuse; Child and Adolescent Psychiatry; Codependent Personality; Depression; Divorce and Separation: Adult Issues; Divorce and Separation: Children's Issues; Geriatric Psychiatry; Jealousy; Substance Abuse.

DOWN SYNDROME

Type of psychology: Developmental psychology; psychopathology
Fields of study: Cognitive processes; organic disorders

Down syndrome is a congenital abnormality characterized by moderate to severe mental retardation and a distinctive physical appearance caused by a chromosomal aberration, the result of either an error during embryonic cell division or the inheritance of defective chromosomal material.

Principal terms

CHROMOSOMES: small, threadlike bodies containing the genes that are microscopically visible during cell division

GAMETES: the egg and sperm cells that unite to form the fertilized egg (zygote) in reproduction

GENE: a segment of the DNA strand containing instructions for the production of a protein

HOMOLOGOUS CHROMOSOMES: chromosome pairs of the same size and centromere position that possess genes for the same traits; one homologous chromosome is inherited from the father and the other from the mother

MEIOSIS: the type of cell division that produces the cells of reproduction, which contain one-half of the chromosome number found in the original cell before division

MITOSIS: the type of cell division that occurs in nonsex cells, which conserves chromosome number by equal allocation to each of the newly formed cells

TRANSLOCATION: an aberration in chromosome structure resulting from the attachment of chromosomal material to a nonhomologous chromosome

Causes and Symptoms

Down syndrome is an example of a genetic disorder, that is, a disorder arising from an abnormality in an individual's genetic material. Down syndrome results from an incorrect transfer of genetic material in the formation of cells. It is also termed trisomy 21 because it most commonly results from the presence of an extra copy of the smallest human chromosome, chromosome 21. Actually, it is not the entire extra chromosome 21 that is responsible, but rather a small segment of the long arm of this chromosome. Only two other trisomies occur with any significant frequency: trisomy 13 (Patau's syndrome) and trisomy 18 (Edwards's syndrome). Both of these disorders are accompanied by multiple severe malformations, resulting in death within a few months of birth. Most incidences of Down syndrome are a consequence of a nondisjunction during meiosis. In about 75 percent of these cases, the extra chromosome is present in the egg. About 1 percent of Down syndrome cases occur after the fertilization of normal gametes from a mitosis nondisjunction, producing a mosaic in which some of the embryo's cells are normal and some exhibit trisomy. The degree of mosaicism and its location will determine the physiological consequences of the nondisjunction. Although mosaic

individuals range from apparent normality to completely affected, typically the disorder is less severe.

In about 4 percent of all Down syndrome cases, the individual possesses not an entire third copy of chromosome 21 but rather extra chromosome 21 material, which has been incorporated via a translocation into a nonhomologous chromosome. In translocation, pieces of arms are swapped between two nonrelated chromosomes, forming "hybrid" chromosomes. The most common translocation associated with Down syndrome is that between the long arm (Down gene area) of chromosome 21 and an end of chromosome 14. The individual in whom the

Many agencies offer social and emotional support for people with Down syndrome and their families. (National Library of Medicine)

translocation has occurred shows no evidence of the aberration, since the normal complement of genetic material is still present, only at different chromosomal locations. The difficulty arises when this individual forms gametes. A mother who possesses the 21/14 translocation, for example, has one normal 21, one normal 14, and the hybrid chromosomes. She is a genetic carrier for the disorder, because she can pass it on to her offspring even though she is clinically normal. This mother could produce three types of viable gametes: one containing the normal 14 and 21; one containing both translocations, which would result in clinical normality; and one containing the normal 21 and the translocated 14 having the long arm of 21. If each gamete were fertilized by normal sperm, two apparently normal embryos and one partial trisomy 21 Down syndrome embryo would result. Down syndrome that results from the passing on of translocations is termed familial Down syndrome and is an inherited disorder.

The presence of an extra copy of the long arm of chromosome 21 causes defects in many tissues and organs. One major effect of Down syndrome is mental retardation. The intelligence quotients (IQs) of affected individuals are typically in the range of 40-50. The IQ varies with age, being higher in childhood than in adolescence or adult life. The disorder is often accompanied by physical traits such as short stature, stubby fingers and toes, protruding tongue, and an unusual pattern of hand creases. Perhaps the most recognized physical feature is the distinctive slanting of the eyes, caused by a vertical fold (epicanthal fold) of skin near the nasal bridge which pulls and tilts the eyes slightly toward the nostrils. For normal Caucasians, the eye runs parallel to the skin fold below the eyebrow; for Asians, this skin fold covers a major portion of the upper eyelid. In contrast, the epicanthal fold in trisomy 21 does not cover a major part of the upper eyelid.

It should be noted that not all defects associated with Down syndrome are found in every affected individual. About 40 percent of Down syndrome patients have congenital heart defects, while about 10 percent have intestinal blockages. Affected individuals are prone to respiratory infections and contract leukemia at a rate twenty times that of the general population. Although Down syndrome children develop the same types of leukemia in the same proportions as other children, the survival rate of the two groups is markedly different. While the survival rate for non-Down syndrome patients after ten years is about 30 percent, survival beyond five years is negligible in Down syndrome patients. It appears that the extra copy of chromosome 21 not only increases the risk of contracting the cancer but also exerts a decisive influence on the disease's outcome. Reproductively, males are sterile while some females are fertile. Although many Down syndrome infants die in the first year of life, the mean life expectancy is about thirty years. This reduced life expectancy results from defects in the immune system, causing a high susceptibility to infectious disease. Most older Down syndrome individuals develop an Alzheimer's-like condition, and less than 3 percent live beyond fifty years of age.

Treatment and Therapy

Trisomy 21 is one of the most common human chromosomal aberrations, occurring in about 0.5 percent of all conceptions and in one out of every seven hundred

to eight hundred live births. About 15 percent of the patients institutionalized for mental deficiency suffer from Down syndrome.

Even before the chromosomal basis for the disorder was determined, the frequency of Down syndrome births was correlated with increased maternal age. For mothers at age twenty, the incidence of Down syndrome is about 0.05 percent, which increases to 0.9 percent by age thirty-five and 3 percent for age forty-five. Studies comparing the chromosomes of the affected offspring with both parents have shown that the nondisjunction event is maternal about 75 percent of the time. This maternal age effect is thought to result from the different manner in which the male and female gametes are produced.

Gamete production in the male is a continual, lifelong process, while it is a one-time event in females. Formation of the female's gametes begins early in embryonic life, somewhere between the eighth and twentieth weeks. During this time, cells in the developing ovary divide rapidly by mitosis, forming cells called primary oocytes. These cells then begin meiosis by pairing up the homologues. The process is interrupted at this point, and the cells are held in a state of suspended animation until needed in reproduction, when they are triggered to complete their division and form eggs. It appears that the frequency of nondisjunction events increases with the length of the storage period. Studies have demonstrated that cells in a state of meiosis are particularly sensitive to environmental influences such as viruses, X rays, and cytotoxic chemicals. It is possible that environmental influences may play a role in nondisjunction events. Up to age thirty-two, males contribute an extra chromosome 21 as often as do females. Beyond this age, there is a rapid increase in nondisjunctional eggs, while the number of nondisjunctional sperm remains constant. Where the maternal age effect is minimal, mosaicism may be an important source of the trisomy. An apparently normal mother who possesses undetected mosaicism can produce trisomy offspring if gametes with an extra chromosome are produced. In some instances, characteristics such as abnormal fingerprint patterns have been observed in the mothers and their Down syndrome offspring.

Techniques such as amniocentesis, chorionic villus sampling, and alpha-fetoprotein screening are available for prenatal diagnosis of Down syndrome in fetuses. Amniocentesis, the most widely used technique for prenatal diagnosis, is generally performed between the fourteenth and sixteenth weeks of pregnancy. In this technique, about one ounce of fluid is removed from the amniotic cavity surrounding the fetus by a needle inserted through the mother's abdomen. Although some testing can be done directly on the fluid (such as the assay for spina bifida), more information is obtained from the cells shed from the fetus that accompany the fluid. The mixture obtained in the amniocentesis is spun in a centrifuge to separate the fluid from the fetal cells. Unfortunately, the chromosome analysis for Down syndrome cannot be conducted directly on the amount of cellular material obtained. Although the majority of the cells collected are nonviable, some will grow in culture. These cells are allowed to grow and multiply in culture for two to four weeks, and then the chromosomes undergo karyotyping, which will detect both trisomy 21 and translocational aberration.

In karyotyping, the chromosomes are spread on a microscope slide, stained, and photographed. Each type of chromosome gives a unique, observable banding pattern when stained which allows it to be identified. The chromosomes are then cut out of the photograph and arranged in homologous pairs, in numerical order. Trisomy 21 is easily observed, since three copies of chromosome 21 are present, while the translocation shows up as an abnormal banding pattern. Termination of the pregnancy in the wake of an unfavorable amniocentesis diagnosis is complicated, because the fetus at this point is usually about eighteen to twenty weeks old, and elective abortions are normally performed between the sixth and twelfth weeks of pregnancy. Earlier sampling of the amniotic fluid is not possible because of the small amount of fluid present.

An alternate testing procedure called chorionic villus sampling became available in the mid-1980's. In this procedure, a chromosomal analysis is conducted on a piece of placental tissue that is obtained either vaginally or through the abdomen during the eighth to eleventh week of pregnancy. The advantages of this procedure are that it can be done much earlier in the pregnancy and that enough tissue can be collected to conduct the chromosome analysis immediately, without the cell culture step. Consequently, diagnosis can be completed during the first trimester of the pregnancy, making therapeutic abortion an option for the parents. Chorionic villus sampling does have some negative aspects. One disadvantage is the slightly higher incidence of test-induced miscarriage as compared to amniocentesis—around 1 percent (versus less than 0.5 percent). Also, because tissue of both the mother and the fetus are obtained in the sampling process, they must be carefully separated, complicating the analysis. Occasionally, chromosomal abnormalities are observed in the tested tissue that are not present in the fetus itself.

Prenatal maternal alpha-fetoprotein testing has also been used to diagnose Down syndrome. Abnormal levels of a substance called maternal alpha-fetoprotein are often associated with chromosomal disorders. Several research studies have described a high correlation between low levels of maternal alpha-fetoprotein and the occurrence of trisomy 21 in the fetus. By correlating alpha-fetoprotein levels, the age of the mother, and specific female hormone levels, between 60 percent and 80 percent of fetuses with Down syndrome can be detected. Although techniques allow Down syndrome to be detected readily in a fetus, there is no effective intrauterine therapy available to correct the abnormality.

The care of a Down syndrome child presents many challenges for the family unit. Until the 1970's, most of these children spent their lives in institutions. With the increased support services available, however, it is now common for such children to remain in the family environment. Although many Down syndrome children have happy dispositions, a significant number have behavioral problems that can consume the energies of the parents, to the detriment of the other children. Rearing a Down syndrome child often places a large financial burden on the family: Such children are, for example, susceptible to illness; they also have special educational needs. Since Down syndrome children are often conceived late in the parents' reproductive period, the parents may not be able to continue to care for these children throughout their offspring's adult years. This is problematic because

many Down syndrome individuals do not possess sufficient mental skills to earn a living or to manage their affairs without supervision.

All women in their mid-thirties have an increased risk of producing a Down syndrome infant. Since the resultant trisomy 21 is not of a hereditary nature, the abnormality can be detected only by the prenatal screening, which is recommended for all pregnancies of women older than age thirty-four.

For parents who have produced a Down syndrome child, genetic counseling can be beneficial in determining their risk factor for future pregnancies. The genetic counselor determines the specific chromosomal aberration that occurred utilizing chromosome studies of the parents and affected child, along with additional information provided by the family history. If the cause was nondisjunction and the mother is young, the recurrence risk is much less than 1 percent; for mothers over the age of thirty-four, it is about 5 percent. If the cause was translocational, the Down syndrome is hereditary and risk is much greater—statistically, a one-in-three chance. In addition, there is a one-in-three chance that clinically normal offspring will be carriers of the syndrome, producing it in the next generation. For couples who come from families having a history of spontaneous abortions, which often result from lethal chromosomal aberrations and/or incidence of Down syndrome, it is suggested that they undergo chromosomal screening to detect the presence of a Down syndrome translocation.

Perspective and Prospects

English physician John L. H. Down is credited with the first clinical description of Down syndrome, in 1886. Since the distinctive epicanthic fold gave Down children an appearance that John Down associated with Asians, he termed the condition "mongolism"—an unfortunate term showing a certain racism on Down's part, since it implies that those affected with the condition are throwbacks to a more "primitive" racial group. Today, the inappropriate term has been replaced with the term "Down syndrome."

A French physician, Jérôme Lejeune, suspected that Down syndrome had a genetic basis and began to study the condition in 1953. A comparison of the fingerprints and palm prints of affected individuals with those of unaffected individuals showed a high frequency of abnormalities in the prints of those with Down syndrome. These prints are developed very early in development and serve as a record of events that take place early in embryogenesis. The extent of the changes in print patterns led Lejeune to the conclusion that the condition was not a result of the action of one or two genes but rather of many genes or even an entire chromosome. Upon microscopic examination, he observed that Down syndrome children possess forty-seven chromosomes instead of the forty-six chromosomes found in normal children. In 1959, Lejeune published his findings, showing that Down syndrome is caused by the presence of an extra chromosome which was later identified as an extra copy of chromosome 21. This first observation of a human chromosomal abnormality marked a turning point in the study of human genetics. It demonstrated that genetic defects not only were caused by mutations of single genes but also could be associated with changes in chromosome number. Although

the presence of an extra chromosome allows varying degrees of development to occur, most of these abnormalities result in fetal death, with only a few resulting in live birth. Down syndrome is unusual in that the affected individual often survives into adulthood.

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See also:

Child and Adolescent Psychiatry; Learning Disabilities; Mental Retardation.

DYSLEXIA

Type of psychology: Language
Fields of study: Childhood and adolescent disorders

Dyslexia is often defined as severe reading disability in children of otherwise average or above-average intelligence; it is thought to be caused by neuropsychological problems. Dyslexia frustrates afflicted children, damages their self-image, produces grave maladjustment in many cases, and decreases their adult contributions to society.

Principal terms

AUDITORY DYSLEXIA: the inability to perceive individual sounds associated with written language (for example, certain vowels or consonants)

BRAIN DYSFUNCTION: disordered or impaired brain function resulting from damage too minor to be observed by existing biomedical technology

DYSGRAPHIA: the inability to write legibly, resulting from badly impaired hand-eye coordination

IMPRINTING: a method of training a dyslexic person to overcome reading problems by use of often-repeated, exaggerated language drills

KINESTHETIC: related to the sensation of body position, presence, or movement, resulting mostly from the stimulation of sensory nerves in muscles, tendons, and joints

PHONOLOGY: the science of speech sounds, especially phonetics and phonemics

VISUAL DYSLEXIA: the lack of ability to translate observed written or printed language into meaningful terms

Causes and Symptoms

The ability to read quickly and well is essential for success in modern industrialized societies. Several researchers, including Robert E. Valett, have pointed out that an individual must acquire considerable basic cognitive and perceptual-linguistic skills in order to learn to read. First, it is necessary to learn to focus one's attention, to concentrate, to follow directions, and to understand the language spoken in daily life. Next, it is essential to develop the following: auditory and visual memory with sequencing ability; word-decoding skills; a facility for structural-contextual language analysis; the ability to interpret the written language; a useful vocabulary that expands as needed; and speed in scanning and interpreting written language. Valett has noted that these skills are taught in all good developmental reading programs.

Yet 20 to 25 percent of the population of the United States and many other industrialized societies, people who otherwise possess at least average intelligence, cannot develop good reading skills. Many such people are viewed as suffering from a neurological disorder called dyslexia, a term that was first introduced by a German ophthalmologist, Rudolph Berlin, more than one hundred years ago.

Berlin meant it to designate all those individuals who possessed an average or above-average performance intelligence quotient (IQ) but who could not read adequately because of an inability to process language symbols.

Others reported children who could see perfectly well but who acted as if they were blind to the written language. For example, they could see a bird flying but were unable to identify the word "bird" written in a sentence. In essence, though the problem has been redefined many times over the ensuing years, the modern definition of dyslexia is still fairly close to Berlin's definition.

Two basic explanations have evolved for dyslexia. Many physicians propose that it is caused by either brain damage or brain dysfunction. Evolution of the problem is attributed to accident, to disease, or to faults in body chemistry. Diagnosis is made by the use of electroencephalograms (EEGs), computed tomography (CT) scans, and other related technology. After such evaluation, medication is often used to diminish hyperactivity and nervousness, and a group of physical training procedures called patterning are used as tools to counter the neurological defects.

In contrast, many special educators and other related researchers believe that the problem is one of dormant, immature, or undeveloped learning centers in the brain. The proponents of this concept encourage the correction of dyslexic problems by emphasized teaching of specific reading skills to appropriate individuals. While such experts also agree that use of appropriate medication can be of value, they lend most of their efforts to curing the problem by a process called imprinting, which essentially trains the dyslexic patient through use of often-repeated, exaggerated language drills.

Another interesting point of view is the idea that dyslexia may at least partly be the fault of the written languages of the Western world. Rudolph F. Wagner has pointed out that children in Japan exhibit an incidence of dyslexia that is less than 1 percent. One explanation for this, say Wagner and others, is that the languages of the Western world require reading from left to right. This characteristic is absent in Japanese—possibly, they suggest, making it easier to learn.

A number of experts, among them Dale R. Jordan, recognize three types of dyslexia. The most common type—and the one most often identified as dyslexia—is visual dyslexia: the lack of ability to translate observed written or printed language into meaningful terms. The major difficulty here is that the afflicted people see certain letters backward or upside down. The result is that, to them, a written sentence is a jumble of letters whose accurate translation may require five times as much time as would be needed by an unafflicted person.

The other two problems viewed as dyslexia are auditory dyslexia and dysgraphia. Auditory dyslexia is the inability to perceive individual sounds of spoken language. Despite having normal hearing, auditory dyslexics are deaf to the differences between certain vowel or consonant sounds; what they cannot hear, they cannot write. Dysgraphia is the inability to write legibly. The basis for this problem is a lack of the hand-eye coordination required to write legibly.

Usually, a child who suffers from visual dyslexia also exhibits elements of auditory dyslexia. This complicates the issue of teaching such a student, because only one type of dyslexic symptom can be treated at a time. Also, dyslexia appears

to be a sex-linked disorder; three to four times as many boys have it as do girls. In all cases, early diagnosis and treatment of dyslexia are essential to its eventual correction. For example, if treatment begins before the third grade, there is an 80 percent probability that dyslexia can be corrected. When dyslexia remains undiscovered until the fifth grade, this probability is halved. If treatment does not begin until the seventh grade, the probability of successful treatment is only 3 to 5 percent.

Preliminary identification of the dyslexic child often can be made from symptoms that include poor written schoolwork, easy distractibility, clumsiness, poor coordination and spatial orientation, confused writing and/or spelling, and poor left-right orientation. Because nondyslexic children can also show many of these symptoms, the second step of such identification is the use of written tests designed to pick out dyslexic children. These include the Peabody Individual Achievement Test, the Halstead-Reitan Neuropsychological Test Battery, and the SOYBAR Criterion Tests. Many more personalized tests are also available.

Treatment and Therapy

Once conclusive identification of a dyslexic child has been made, it becomes possible to begin a corrective treatment program. Most such programs are carried out by special-education teachers in school resource rooms, in special classes limited to children with reading disabilities, and in schools that specialize in treating the disorder.

One often-cited method is that of Grace Fernald, which utilizes kinesthetic imprinting, based on a combination of "language experience" and tactile stimulation. In this popular method, a given child learns to read as follows. First, the child relates a spontaneous story to the teacher, who transcribes it. Next, each word unknown to the child is written down by the teacher, and the child traces its letters over and over until he or she can write that word without using the model. Each word learned becomes part of the child's word file. A large number of stories are handled this way. Many variants of the method are in use. Though it is quite slow, many anecdotal reports praise its results. (Despite this, Donald K. Routh pointed out in 1987 that the method had never been subjected to a rigorous, controlled study of its efficacy.)

A second common method utilized by special educators is the Orton-Gillingham-Stillman method, developed in a collaboration by teachers Anna Gillingham and Essie Stillman and the pediatric neurologist Samuel T. Orton. The method evolved from Orton's conceptualization of language as developing from a sequence of processes in the nervous system that end in unilateral control by the left cerebral hemisphere. He proposed that dyslexia arises from conflicts, which need to be corrected, between this hemisphere and the right cerebral hemisphere, usually involved in the handling of nonverbal, pictorial, and spatial stimuli.

Consequently, the method used is multisensory and kinesthetic, like Fernald's; however, it begins with the teaching of individual letters and phonemes, and progresses to dealing with syllables, words, and sentences. Children taught by this method are drilled systematically to imprint a mastery of phonics and the sounding

out of unknown written words. They are encouraged to learn how the elements of written language look, how they sound, how it feels to pronounce them, and how it feels to write them down. Donald Routh has pointed out that the Orton-Gillingham-Stillman method is equally laborious as that of Fernald. It is widely used and appreciated, however, and believed to work well.

Another method that merits brief discussion is the use of therapeutic drugs in the treatment of dyslexia. Most physicians and educators propose the use of these drugs as a useful adjunct to the training of dyslexic children who are easily distracted and restless or who have low morale because of embarrassment resulting from peer pressure. The drugs used most often are the amphetamine Dexedrine and methylphenidate (Ritalin).

These stimulants, taken in appropriate doses, lengthen the time period during which some dyslexic children function well in the classroom and also produce feelings of self-confidence. Side effects of overdose, however, include lost appetite, nausea, nervousness, and sleeplessness. Furthermore, there is the potential problem of drug abuse. Despite this, numerous sources (including both Valett and Jordan) indicate that stimulant benefits far outweigh any possible risks when the drugs are utilized carefully and under close medical supervision. Other, less dependable therapies sometimes attempted include special diets and the use of vitamins and minerals.

One other important aspect of the treatment of dyslexia is good parental emotional support, which helps children cope with their problems and with peer pressure. Useful aspects of this support include a positive attitude toward the afflicted child; appropriate home help for the child that complements efforts undertaken at school; encouragement and praise for achievements, without recrimination when repeated mistakes are made; and good interaction with special-education teachers assigned to a child.

Perspective and Prospects

The identification of dyslexia more than one hundred years ago, which resulted from the endeavors of the German physician Rudolph Berlin and of W. A. Morgan, in England, launched efforts to find a cure for this unfortunate disorder. In 1917, the Scottish eye surgeon James Hinshelwood published a book on dyslexia, which he viewed as being a hereditary problem, and the phenomenon became better known to physicians. Attempts at educating dyslexics, as recommended by Hinshelwood and other physicians, were highly individualized until the endeavors of Orton and coworkers and of Fernald led to more standardized and soon widely used methods.

Furthermore, with the development of a more complete understanding of the brain and its many functions, better counseling facilities, and the conceptualization and actualization of both parent-child and parent-counselor interactions, the prognosis for successful dyslexic training has improved significantly. Also, a number of extensive studies of dyslexic children have been carried out and have identified dyslexia as a complex syndrome composed of numerous associated behavioral dysfunctions related to visual-motor brain immaturity. These include poor memory

for details, easy distractibility, poor motor skills, letter and word reversal, and the inability to distinguish between important elements of the spoken language.

A particularly extensive and useful study was carried out by Edith Klasen and described in her book *The Syndrome of Specific Dyslexia: With Special Consideration of Its Physiological, Psychological, Testpsychological, and Social Correlates* (1972). The Klasen study identified the role of psychoanalytical interventions in the treatment of some dyslexic subjects, and it pointed out that environmental and socioeconomic factors contribute relatively little to occurrence of dyslexia but affect the outcomes of its treatment.

It is the endeavors of special education that have made the greatest inroads into treatment of dyslexia. Further advances in the area will undoubtedly be made, as the science of the mind grows and diversifies and as the contributions of the psychologist, physician, physiologist, and special educator mesh together more effectively.

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Sanford S. Singer

See also:

Attention-Deficit Disorder; Brain Disorders; Child and Adolescent Psychiatry; Learning Disabilities.

Eating Disorders

Type of psychology: Psychopathology
Fields of study: Childhood and adolescent disorders

A set of emotional disorders centering on body image that lead to misuse of food in a variety of ways—through overeating, overeating and purging, or undereating—that severely threaten the physical and mental well-being of the individual.

Principal terms

AMENORRHEA: the cessation of menstruation
ANOREXIA NERVOSA: a disorder characterized by the phobic avoidance of eating, the relentless pursuit of thinness, and fear of gaining weight
ARRHYTHMIA: irregularity or loss of rhythm, especially of the heartbeat
BULIMIA: a disorder characterized by binge eating followed by self-induced vomiting
ELECTROLYTES: ionized salts in blood, tissue fluid, and cells, including salts of potassium, sodium, and chloride

Causes and Symptoms

The presence of an eating disorder in a patient is defined by an abnormal mental and physical relationship between body image and eating. While obesity is considered an eating disorder, the most prominent conditions are anorexia nervosa and bulimia nervosa. Anorexia nervosa (the word "anorexia" comes from the Greek for "loss of appetite") is an illness characterized by the relentless pursuit of thinness and fear of gaining weight. Bulimia nervosa (the word "bulimia" comes from the Greek for "ox appetite") refers to binge eating followed by self-induced vomiting. These conditions are related in intimate, yet ill-defined ways.

Anorexia nervosa affects more women than men by the overwhelming ratio of nineteen to one. It most often begins in adolescence and is more common among the upper and middle classes of the Western world. According to most studies, its incidence increased severalfold from the 1970's to the 1990's. Prevalence figures vary from 0.5 to 0.8 cases per one hundred adolescent girls. A familiar pattern of anorexia nervosa is often present, and studies indicate that 16 percent of the mothers and 23 percent of the fathers of anorectic patients had a history of significantly low adolescent weight or weight phobia.

The criteria for anorexia nervosa include intense fear of becoming obese, which does not diminish with the progression of weight loss; disturbance of body image, or feeling "fat" even when emaciated; refusal to maintain body weight over a minimal weight for age and height; the loss of 25 percent of original body weight or being 25 percent below expected weight based on standard growth charts; and no known physical illness that would account for the weight loss. Anorexia nervosa is also classified into primary and secondary forms. The primary condition is the distinct constellation of behaviors described above. In secondary anorexia nervosa,

the weight loss results from another emotional or organic disorder.

The most prominent symptom of anorexia nervosa is a phobic avoidance of eating that goes beyond any reasonable level of dieting in the presence of striking thinness. Attending this symptom is the characteristic distorted body image and faulty perceptions of hunger and satiety, as well as a pervasive sense of inadequacy.

The distortion of body image renders patients unable to evaluate their body weight accurately, so that they react to weight loss by intensifying their desire for thinness. Patients characteristically describe themselves as "fat" and "gross" even when totally emaciated. The degree of disturbance in body image is a useful prognostic index. Faulty perception of inner, visceral sensations, such as hunger and satiety, extends also to emotional states. The problem of nonrecognition of feelings is usually intensified with starvation.

Other cognitive distortions are also common in anorectic patients. Dichotomous reasoning—the assessment of self or others—is either idealized or degraded. Personalization of situations and a tendency to overgeneralize are common. Anorectics display an extraordinary amount of energy, directed to exercise and schoolwork in the face of starvation, but may curtail or avoid social relationships. Crying spells and complaints of depression are common findings and may persist in some anorectic patients even after weight is gained.

Sleep disturbances have also been reported in anorectics. Obsessive and/or compulsive behaviors, usually developing after the onset of the eating symptoms, abound with anorexia. Obsession with cleanliness and house cleaning, frequent handwashing, compulsive studying habits, and ritualistic behaviors are common.

As expected, the most striking compulsions involve food and eating. Anorectics' intense involvement with food belies their apparent lack of interest in it. The term "anorexia" is, in fact, a misnomer because lack of appetite is rare until late in the illness. Anorectics often carry large quantities of sweets in their purses and hide candies or cookies in various places. They frequently collect recipes and engage in elaborate meal preparation for others. Anorectics' behavior also includes refusal to eat with their families and in public places. When unable to reduce food intake openly, they may resort to such subterfuge as hiding food or disposing of it in toilets. If the restriction of food intake does not suffice for losing weight, the patient may resort to vomiting, usually at night and in secret. Self-induced vomiting then becomes associated with bulimia. Some patients also abuse laxatives and diuretics.

Commonly reported physical symptoms include constipation, abdominal pain, and cold intolerance. With severe weight loss, feelings of weakness and lethargy replace the drive to exercise. Amenorrhea (cessation of menstruation) occurs in virtually all cases, although it is not essential for a diagnosis of anorexia. Weight loss generally precedes the loss of the menstrual cycle. Other physical symptoms reveal the effects of starvation. Potassium depletion is the most frequent serious problem occurring with both anorexia and bulimia. Gastrointestinal disturbances are common, and death may occur from either infection or electrolyte imbalance.

Bulimia usually occurs between the ages of twelve and forty, with greatest frequency between the ages of fifteen and thirty. Unlike anorectics, bulimics usually are of normal weight, although some have a history of anorexia or obesity.

Like anorectics, however, they are not satisfied by normal food intake. The characteristic symptom of bulimia is episodic, uncontrollable binge eating followed by vomiting or purging. The binge eating, usually preceded by a period of dieting lasting a few months or more, occurs when patients are alone at home and lasts about one hour. In the early stages of the illness, patients may need to stimulate their throat with a finger or spoon to induce vomiting, but later they can vomit at will. At times, abrasions and bruises on the back of the hand are produced during vomiting. The binge-purge cycle is usually followed by sadness, self-deprecation, and regret. Bulimic patients have troubled interpersonal relationships, poor self-concept, a high level of anxiety and depression, and poor impulse control. Alcohol and drug abuse are not uncommon with bulimia, in contrast to their infrequency with anorexia.

From the medical perspective, bulimia is nearly as damaging to its practitioners as anorexia. Dental problems, including discoloration and erosion of tooth enamel and irritation of gums by highly acidic gastric juice, are frequent. Electrolyte imbalance, such as metabolic alkalosis or hypokalemia (low potassium levels) caused by the self-induced vomiting, is a constant threat. Parotid gland enlargement, esophageal lacerations, and acute gastric dilatation may occur. Cardiac irregularities may also result. The chronic use of emetics such as ipecac to induce vomiting after eating may result in cardiomyopathy (disease of the middle layer of the walls of the heart, the myocardium), occasionally with a fatal outcome. While their menstrual periods are irregular, these patients are seldom amenorrheic.

Another eating disorder, obesity, is the most prevalent nutritional disorder of the Western world. Using the most commonly accepted definition of obesity—a body weight greater than 20 percent above an individual's normal or desirable weight—approximately 35 percent of adults in the United States were considered obese at the end of the 1990's. This figure represents twice the proportion of the population that was obese in 1900. More sedentary lifestyles strongly contributed to this increase. Although the problem affects both sexes, obesity is found in a larger portion of women than men. In the forty- to forty-nine-year-old age group, 40 percent of women, while only 30 percent of men, were found to meet the criterion for obesity. Prevalence of obesity increases with both age and lower socioeconomic status.

While results of both animal and human studies suggest that obesity is genetically influenced to some degree, most human obesity is reflective of numerous influences and conditions. Evidence indicates that the relationship between caloric intake and adipose tissue is not as straightforward as had been assumed. In the light of this evidence, the failure to lose unwanted pounds and the failure to maintain hard-won weight loss experienced by many dieters seem much more understandable. Frequently, obese individuals are viewed pejoratively by others and by themselves. They are seen as having insufficient willpower and self-discipline. It is incorrectly assumed that it is no more difficult for most obese individuals to lose fat by decreasing caloric intake than it is for individuals in a normal weight range and that it is just as easy for the obese to maintain normal weight as it is for those who have never been obese.

Treatment and Therapy

The management of anorectic patients, in either hospital or outpatient settings, may include individual psychotherapy, family therapy, behavior modification, and pharmacotherapy. Many anorectic patients are quite physically ill when they first consult a physician, and medical evaluation and management in a hospital may be necessary at this stage. A gastroenterologist or other medical specialist familiar with this condition may be required to evaluate electrolyte disturbance, emaciation, hypothermia, skin problems, hair loss, sensitivity to cold, fatigue, and cardiac arrhythmias. Starvation may cause cognitive and psychological disturbances that limit the patient's cooperation with treatment.

Indications for hospitalization are weight loss exceeding 30 percent of ideal body weight or the presence of serious medical complications. Most clinicians continue the hospitalization until 80 percent to 85 percent of the ideal body weight is reached. The hospitalization makes possible hyperalimentation (intravenous infusion of nutrients) when medically necessary. Furthermore, individual and family psychiatric evaluations can be performed and a therapeutic alliance established more rapidly with the patient hospitalized.

Most programs utilize behavior modification during the course of hospitalization, making increased privileges such as physical and social activities and visiting contingent on weight gain. A medically safe rate of weight gain is approximately one-quarter of a pound a day. Patients are weighed daily, after the bladder is emptied, and daily fluid intake and output are recorded. Patients with bulimic characteristics may be required to stay in the room two hours after each meal without access to the bathroom to prevent vomiting. Some behavior modification programs emphasize formal contracting, negative contingencies, the practice of avoidance behavior, relaxation techniques, role-playing, and systematic desensitization.

The goal of dynamic psychotherapy is to achieve patient autonomy and independence. The female anorectic patient often uses her body as a battleground for the separation or individuation struggle with her mother. The cognitive therapeutic approach begins with helping the patient to articulate beliefs, change her view of herself as the center of the universe, and render her expectations of the consequences of food intake less catastrophic. The therapist acknowledges the patient's beliefs as genuine, particularly the belief that her self-worth is dependent on achieving and maintaining a low weight. Through a gradual modification of self-assessment, the deficits in the patient's self-esteem are remedied. The therapist also challenges the cultural values surrounding body shape and addresses behavioral and family issues such as setting weight goals and living conditions.

The behavioral management of bulimia includes an examination of the patient's thinking and behavior toward eating and life challenges in general. The patient is made fully aware of the extent of her binging by being asked to keep a daily record of her eating and vomiting practices. A contract is then established with the patient to help her restrict her eating to three or four planned meals per day. The second stage of treatment emphasizes self-control in eating as well as in other areas of the patient's life. In the final stage of treatment, the patient is assisted in maintaining her new, more constructive eating behaviors.

Almost all clinicians work intensively with the family of anorectic patients, particularly in the initial stage of treatment. Family treatment begins with the current family structure and later addresses the early family functioning that can influence family dynamics dramatically. Multigenerational sources of conflict are also examined.

Family therapy with bulimics explores the sources of family conflicts and helps the family to resolve them. Particular attention is directed toward gender roles in the family, as well as the anxiety of the parents in allowing their children autonomy and self-sufficiency. The roots of impulsive and depressive behaviors and the role of parental satisfaction with the patients' lives and circumstances are often explored and addressed.

In the treatment of obesity, the use of a reduced-calorie diet regimen alone does not appear to be an effective treatment approach for many patients, and it is believed that clinicians may do more harm than good by prescribing it. In addition to the high number of therapeutic failures and possible exacerbation of the problem, negative emotional responses are common side effects. Depression, anxiety, irritability, and preoccupation with food appear to be associated with dieting. Such responses have been found to occur in as many as half of the general obese population while on weight-loss diets and are seen with even greater frequency in the severely obese. Some researchers conclude that some cases are better off with no treatment. Their reasoning is based not only on the ineffectiveness of past treatments and the evidence of biological bases for differences in body size but also on the fact that mild to moderate obesity does not appear to put women (or men) at significant health risk. Moreover, an increase in the incidence of serious eating disorders in women has accompanied the increasingly stringent cultural standards of thinness for women. Given the present level of knowledge, it may be that some individuals would benefit most by adjusting to a weight that is higher than the culturally determined ideal.

When an individual of twenty-five to thirty-four years of age is more than 100 percent above normal weight level, however, there is a twelvefold increase in mortality, and the need for treatment is clear. Although much of the increased risk is related to the effects of extreme overweight on other diseases (such as diabetes, hypertension, and arthritis), these risks can decrease with weight loss. Conservative treatments have had very poor success rates with this group, both in achieving weight reduction and in maintaining any reductions accomplished. Inpatient starvation therapy has had some success in reducing weight in the severely obese but is a disruptive, expensive, and risky procedure requiring very careful medical monitoring to avoid fatality. Furthermore, for those patients who successfully reduce their weight by this method, only about half will maintain the reduction.

Severe obesity seems to be treated most effectively by surgical measures, which include wiring the jaws to make oral intake nearly impossible, reducing the size of the stomach by suturing methods, or short-circuiting a portion of the intestine so as to reduce the area available for uptake of nutrients. None of these methods, however, are without risk.

Perspective and Prospects

The apparent increase in the incidence of anorexia and bulimia in the 1980's and the interest that they have generated both within the scientific community and among the general public have created the impression that these are new diseases. Although scientific writings on the two disorders were uncommon before the early 1960's, eating disorders are by no means recent developments.

Many early accounts of what might have been the condition of anorexia nervosa exist. The clearest and most-detailed account is probably the treatise by Richard Morton, a London physician, in his *Phthisiologica: Or, A Treatise of Consumptions* (1964), first published in Latin. In the book, he described several conditions of consumption, devoting one section to the condition of "nervous consumption" in which the emaciation occurred without any remarkable fever, cough, or shortness of breath. He believed the illness to be the result of violent "passions of the mind," the intemperate drinking of alcohol, and an "unwholesome air." He then described two cases, an eighteen-year-old woman who subsequently died following a "fainting fit" and a sixteen-year-old boy who made a partial recovery.

The term "anorexia nervosa" was first used by Sir William Gull (1816-1890), a physician at Guy's Hospital in London, in a paper published in 1874 in which he described the case histories of four women, including one for whom the illness was fatal. He had first mentioned the illness, briefly calling it "apepsia hysterica," in a lengthy address on diagnosis in medicine that he delivered in Oxford, England, in 1868. By 1874, however, he believed that the term "anorexia" would be more correct, and he preferred the more general term "nervosa," since the disease occurs in males as well as females. As part of the clinical picture of the illness, he emphasized the presence of amenorrhea, constipation, bradycardia, loss of appetite, emaciation, and in some cases low body temperature, edema in the legs, and cyanotic peripheries. He commented particularly on the remarkable restlessness and "mental perversity" of the patients and was convinced that the loss of appetite was central in origin. He found the illness to occur mainly in young females between the ages of sixteen and twenty-three.

Ernest Charles Laseque (1816-1883), a professor of clinical medicine in Paris, published an article in 1873 in which he reported on eight patients. He found the illness to occur mostly in young women between the ages of fifteen and twenty, with the onset precipitated by some emotional upset. He also described the occurrence of diminished food intake, constipation, increased activity, amenorrhea, and the patient's contentment with her condition despite the entreaties and threats of family members.

Despite these promising beginnings, the concept of anorexia nervosa was not clearly established until modern times. The main reason for the conceptual confusion was the overgeneralized interpretation of the nature of the patient's refusal to eat. A second source of confusion was the erroneous view that severe emaciation was a frequent, if not primary, feature of hypopituitarism, a condition first described in 1914. That anorexia nervosa was not related to hypopituitarism was finally clarified by researchers in 1949, but the overgeneralized interpretation of the nature of the food refusal persisted into the early 1960's.

If anorexia is taken to mean a loss of the desire to eat, then there is no doubt that the term "anorexia nervosa" is a misnomer. Anorectic patients refuse to eat not because they have no appetite, but because they are afraid to eat; the food refusal or aversion to eating is the result of an implacable and distorted attitude toward weight, shape, and fatness. The idea that this characteristic attitude is the primary feature of the disorder was not clearly formulated until the early 1960's. Once the concept took hold, the illness of anorexia nervosa became distinguishable from other illnesses that led to similar malnutrition. Thus, for example, a person with hysteria may refuse to eat because of a genuine loss of appetite but does demonstrate the characteristic pursuit of thinness. In the 1980's, there was a revival of the idea that the eating disorders are merely variants of an affective illness.

After occurrences of vomiting and binge eating in a context of anorexia nervosa were described, other investigators proposed two subgroups of anorectic patients: the restrictors and the vomiters. This idea was taken further in 1980 by researchers who divided anorexia nervosa into the restrictor and the bulimic subgroups. The occurrence of binge eating in the context of obesity was described as early as 1959, and in 1970, one investigator described the condition as the "stuffing syndrome." Meanwhile, in 1977, several researchers in Japan proposed that *kibarashigui* (binge eating with an orgiastic quality) be delineated as a separate syndrome from anorexia nervosa. The confusion produced by using a symptom (bulimia) to describe a syndrome (also bulimia) is considerable, and in the English-speaking world the terms "bulimarexia," "dietary chaos syndrome," and "abnormal normal weight control syndrome" have been proposed for the binge-eating syndrome in patients with a normal or near-normal weight.

In 1980, the American Psychiatric Association (APA) distinguished bulimia as a syndrome from anorexia nervosa, and in 1987, the APA replaced the term with "bulimia nervosa." Doubts still persisted, however, regarding the identification of the eating disorders. On the one hand, the boundary between the disorders and "normal" dieting behavior seems blurred. On the other hand, the eating disorders are sometimes considered to be variants of other psychiatric illnesses, previously schizophrenia, obsessive-compulsive disorder, and in the 1980's, the mood disorders. A discussion of the eating disorders is necessary if researchers are to agree on definitions so that the disorders are distinguishable from a major depression or from each other.

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Genevieve Slomski

See also:

Addictive Personality and Disorders; Anorexia Nervosa and Bulimia Nervosa; Anxiety; Child and Adolescent Psychiatry; Depression; Obsessive-Compulsive Disorder; Stress.

Electroconvulsive Therapy

Type of psychology: Psychotherapy
Fields of study: Biological treatments

Electroconvulsive therapy (ECT), or "shock" therapy, is the controlled application of an electric current to the brain to induce a seizure. This treatment is used primarily for severe and debilitating mental disorders, such as major depression. It is a controversial treatment that has both proponents and opponents.

Principal terms

ANTEROGRADE AMNESIA: the inability to remember new material
GRAND MAL SEIZURE: a seizure characterized by intense stiffening of the body followed by sharp, jerky movements and unconsciousness
MANIA: a mental disorder marked by extreme hyperactivity, agitation, racing thoughts, and distractibility
PSYCHOTROPIC MEDICATION: medication that is used in the treatment of mental disorders
RETROGRADE AMNESIA: the inability to remember things from the past
SCHIZOPHRENIA: a mental disorder marked by disorganized and odd thinking, hearing or seeing things that are not there, and flattened or blunt affect
SOMATIC THERAPY: a treatment for a mental disorder that involves a physical component, such as medications or ECT

Overview

Electroconvulsive therapy (ECT), sometimes known as shock therapy, is a somatic, or physical, form of therapy that is used for some individuals who suffer from severe mental disorders. It involves the direct application of an electric current to the brain. Typically, this current lasts for up to one second at a rate of 140 to 170 volts. The purpose of this electrical charge is to induce a grand mal seizure that will usually last for thirty to sixty seconds. The seizure that is induced is similar to those experienced in some types of epilepsy. It is through this grand mal seizure that ECT has its beneficial effect in reducing the symptoms of the patient.

The use of electrical charges as a medical treatment has been reported for centuries. As early as 47 C.E., Scribonius Largus used an electric eel to treat headaches. During the sixteenth century, Ethiopians were reported to have used electric catfish to expel evil spirits from the bodies of the mentally ill. Direct electric charges for the treatment of nervous complaints was also reported during the eighteenth century in Europe.

The modern application of electric current for the treatment of individuals with mental disorders began in 1938. It was at this time that two Italians, Ungo Cerletti, a psychiatrist, and Lucino Bini, a neuropathologist, invented the first ECT machine

for use on humans. Cerletti and Bini first used their newly developed ECT machine to induce convulsions for the treatment of schizophrenic patients, and they reported that the treatment was a success.

ECT was introduced into the United States in 1940, at which time it quickly became the major somatic treatment for all severely disturbed individuals, regardless of mental disorder. By the mid-1950's, its use began to decline rapidly for several reasons, including the introduction of psychotropic medications, increasing demands for civil rights for the mentally ill, and concerns about potential adverse effects of ECT. Subsequently, however, a growing body of research has indicated that ECT is an effective treatment for some severe mental disorders. This research has led to a gradual increase in the acceptance of its use, particularly in the treatment of severely depressed individuals.

When ECT was first used for the treatment of mental disorders, the patient would be strapped to a table and, without any medications or other medical safeguards, would be administered the electrical current and sent into a convulsion. During this convulsion, the patient would thrash around on the table, often being left with broken limbs and other physical complications. In its current use, prior to administration of the ECT, the patient is given a muscle relaxant, which completely immobilizes the body, and anesthesia, which makes the patient completely unconscious. The result of these safeguards has been a much safer treatment of the patient.

The theoretical basis of the original use of ECT had to do with the observation that schizophrenia and epilepsy rarely occur together, suggesting that the two are mutually exclusive. Based on this observation, it was hypothesized that, if a seizure could be induced in a schizophrenic, the schizophrenic symptoms could be eliminated. Physicians had tried previously to induce such seizures by means of injections of insulin, camphor, and other chemicals, but these approaches proved to be too dangerous for the patients.

Although this early theory of the mechanics of ECT has been refuted, there still is little knowledge of how and why ECT actually works. The only fact that has been firmly established is that it is the seizure that ECT induces that creates any positive changes in the patient's symptoms. There is no clear-cut explanation, however, of how the seizure creates the changes. Several theories have been developed to explain the process, most of which center on ECT's effect on neurotransmitters.

Neurotransmitters are chemicals that are used in the brain to transmit messages from one cell to another. One well-accepted theory holds that abnormalities in the level and utilization of certain neurotransmitters lead to the development of mental disorders such as depression, schizophrenia, and mania. Consequently, it is thought that ECT, through the creation of a seizure, somehow affects the level and utilization of some of these neurotransmitters, and that it is this process that reduces the patient's symptoms of mental disorder. While research to investigate how ECT works continues, it is important to remember that, as with all somatic treatments, ECT does not cure the disorder; it provides only temporary relief from the symptoms.

Despite its reported effectiveness, ECT remains a controversial treatment for mental disorders. Opponents point to potential adverse effects that ECT can cause,

particularly the possibility of permanent brain damage resulting from the induced seizure. These opponents, who highlight the negative effects that ECT can have on a patient's memory, prefer the use of alternative treatment methods. The public media have served to exacerbate negative perceptions of ECT by depicting it as an inhumane treatment that is used only to control and punish malcontents, not to help the severely disturbed. There is perhaps no better example of the media's distorted depiction of ECT than that found in the film *One Flew over the Cuckoo's Nest* (1975), in which ECT was used as a brutal method to control and manage the main character. As a result of these misunderstandings and distorted perceptions, ECT is often not used when it might be helpful.

Applications

It has been estimated that each year 60,000 to 100,000 people in the United States receive electroconvulsive therapy. This form of treatment has been used to treat a veriety of mental disorders, including severe major depression, schizophrenia, and mania. Several surveys have indicated that more than three-fourths of individuals who receive ECT have been diagnosed as suffering from severe major depression. The second-largest group of individuals receiving ECT consists of those who have been diagnosed as schizophrenic. While there is substantial evidence that ECT is effective in the treatment of severe major depression, the evidence supporting the use of ECT to treat other disorders is not as strong.

Generally speaking, ECT is not seen as a treatment of choice. That is, it will most likely not be the first treatment given to someone suffering from a severe mental disorder. Instead, it is typically viewed as the treatment of last resort and is used primarily to treat individuals who do not respond to any other treatments. For example, a typical course of treatment for an individual suffering from debilitating severe major depression would be first to try talking therapy and to use one of the many antidepressant medications. For most people, it takes two to four weeks to respond to such medications. If the patient does not respond to the medication, another antidepressant medication may be tried. If, after several trials of medication, the patient still does not respond and continues to be severely depressed, ECT might be considered a viable option.

There are few individuals for whom ECT might be considered the treatment of choice. These individuals include those who are in a life-threatening situation, such as those who show symptoms of severe anorexia or strong suicidal tendencies, or those for whom medications would be damaging. ECT might be used to treat pregnant women, for example, since it presents fewer risks for a fetus than medication does, or individuals with heart disease, for whom medications can cause severe complications.

Because of the stigma attached to ECT as a result of its historical misuse and its characterization in the popular media, many physicians believe that ECT is not used as widely as it could and should be. Often, ECT is suggested as the treatment of choice, but because of its stigma, other approaches are tried first. The effect of this decision is to deprive the patient of an effective treatment and delay or prevent remission.

When ECT is indicated for the treatment of a mental disorder, it usually involves five to ten applications of ECT administered at a rate of two or three per week. The number of ECT treatments given, however, will vary depending on the individual's medical history and the severity of the presenting symptoms. ECT is always administered by a physician; it cannot be ordered by a psychologist. When ECT is applied, many medical safeguards are used to prevent or minimize adverse effects. These include the use of a muscle relaxant, anesthesia, and oxygen. These medical procedures have made the use of ECT much safer than it was during the days when the patient would thrash about the table, breaking bones.

There have been additional refinements in the use of ECT that have made it even safer. One such refinement is the application of unilateral, rather than bilateral, ECT. In unilateral ECT, the electric shock is sent through only one of the brain's two hemispheres. Usually, the shock is sent through the right hemisphere, which controls abstract thinking and creativity, rather than the left hemisphere, which controls language and rational thinking. While usually as effective as bilateral ECT, in which the shock goes through the entire brain, unilateral ECT has been shown to cause fewer adverse side effects.

Despite the refinements in ECT and the caution exercised in its use, there are several documented potential adverse side effects. Although most research indicates that these effects are temporary, some researchers suggest that ECT can cause permanent brain damage. The major adverse effects of ECT relate to how well the patient's brain functions after the treatment. The most common effect is extreme confusion and disorientation in the patient upon awakening after an ECT treatment. Generally, this confusion will last for only a few minutes to a few hours.

Another serious concern about ECT's effects on the cognitive functioning of the patient has to do with the patient's memory. ECT can cause retrograde amnesia, the inability to remember things from the past, and anterograde amnesia, the inability to memorize new material. Both forms of amnesia are most noticeable in the first days and weeks after the ECT treatments have stopped. With the passage of time, the patient will slowly remember more from the past and will regain or strengthen the ability to remember new material. In most patients, this recovery of memory will take no more than two to six months. The patient may, however, permanently lose memories of events that occurred immediately prior to the ECT treatments or while the patient was hospitalized for the treatments. The degree of memory loss appears to be related to the number of ECT treatments the patient received.

Research investigating permanent brain damage from the use of ECT has been mixed. Some research has indicated that any application of ECT will cause brain damage and that more brain damage will occur as more treatments are applied. Long-term impairment in the patient's memory is one effect that has thus been identified as permanent. Other researchers, however, have reported that ECT does not cause permanent brain damage. In the meantime, ECT is used cautiously, and research continues into its potential adverse effects.

Perspective and Prospects

Prior to the advent of psychotropic medications, there were few effective treatments for the severely mentally ill. Numerous treatment methods were attempted to help relieve the symptoms of mental illness. Among these methods were bloodletting, the use of leeches, and immersion in water. Perhaps the most common approach was the permanent institutionalization of severely mentally ill individuals. This was done not only to control patients but also to protect others, since patients were viewed as a threat to others and themselves.

As a result of the ineffectiveness of the treatments described above and the growing concern about the institutionalization of the mentally ill, a number of new treatment approaches were developed and applied. Among these new approaches was electroconvulsive therapy. Electroconvulsive shock therapy was first used on schizophrenic patients, and the treatment met with some success. It was also tried on depressed and manic patients with even greater success. As a result of these successes and the lack of other effective treatment approaches, ECT quickly came to be a commonly used treatment for individuals who suffered from a variety of mental disorders.

There were many factors that led to ECT's falling out of favor during the late 1950's. First, the earlier applications of ECT held significant dangers for the patient. The risk of death was approximately one in one thousand, and the risk of physical damage, such as broken bones, was even greater—in fact, such damage was noted in up to 40 percent of the patients. Concerns about complications caused by the use of ECT continue today, and their focus is ECT's impact on cognitive functioning.

Another factor that led to the decline in the use of ECT was the development and introduction of psychotropic medications. These medications revolutionized the treatment of the mentally ill and led to thousands of patients being deinstitutionalized. In terms of both effectiveness and safety, it soon became evident that the use of these medications was substantially preferable to the use of ECT.

A third major influence on the decline of ECT's use was the growing civil rights movement for the mentally ill. Many community and religious leaders began to advocate the fair and humane treatment of the seriously mentally ill. These individuals saw ECT as an undesirable treatment method, used as an instrument for controlling and punishing individuals who could not defend themselves. This view of ECT as inhumane soon came to be widely held. ECT was perceived as a method to control, rather than help, patients—as a punishment rather than a therapy.

These and other factors led to the substantially decreased use of ECT. Subsequently, however, well-designed research has begun to define ECT as a relatively safe treatment method that may be the best therapy in certain situations. Additionally, refinements in the application of ECT have increased its effectiveness and reduced its complications. As a result of not only the ambiguity about its potential adverse effects but also the emotional issues related to its use, the controversy about ECT and its relative risks and benefits is likely to continue for many years.

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Mark E. Johnson

See also:

Abnormality: Biomedical Models; Depression; Madness: Historical Concepts; Psychoactive Drug Therapy; Schizophrenia.

Forgetting and Forgetfulness

Type of psychology: Memory
Fields of study: Cognitive processes

Forgetting is one of the many puzzling aspects of memory, and various theories have tried to explain it in different ways; among the proposed theories are the concepts of memory decay, interference, and purposeful forgetting.

Principal terms

BIT: a very small amount of data or information, such as a number, letter, or name
CHUNK: an amount of information or data
DECAY: the loss of memory traces over time
ENCODING: the learning of new material or information
INFORMATION-PROCESSING MODEL: the idea that people learn new information by performing various operations on it; the analogy is to a computer's operation
RETRIEVAL: the remembering or recalling of previously learned information or material

Overview

Although everyone has forgotten something at some point in their lives, some people seem to have better memories than others. There are several theories concerning why people forget and why some people seem to be forgetful or "absentminded." Nevertheless, it is not really known why some people forget and others have very good memories.

One theory on forgetting holds that "forgotten" material was never learned in the first place. Another possibility is that very little importance was attached to the material learned and forgotten. Sometimes people are overwhelmed by the sheer amount of information they must learn and are simply incapable of remembering the massive amount of material. Another theory about forgetting suggests that material is never really forgotten; rather, one cannot find the key to retrieve the information from the brain's filing system—its long-term memory. Nearly everyone has experienced the "tip-of-the-tongue" phenomenon (one sees someone at a party, for example, and cannot quite remember the person's name). Sometimes concentration aids memory retrieval; often association helps the process. Psychologists have also noted primacy and recency effects regarding memory; that is, one remembers what is learned first and what is learned last most efficiently. Material that is presented in the middle tends to be more easily forgotten. Aging seems to affect the retrieval process, but the reasons are not completely understood; brain deterioration and diminished care, concern, or motivation are all possible factors.

Sometimes interference can affect one's ability to remember. If one is taking

classes at nine, ten, and eleven in the morning, for example, one may have difficulty remembering material because the information from each of the three classes interferes with that of the other classes; this will be especially true if the subject matter is similar. This same process can affect memories of everything from motion pictures seen to events in one's own life. The greater the number of similar films or events (such as dinners in the same type of restaurant) there have been, the more interference there may be. There are two types of interference, retroactive and proactive interference. In proactive interference, occurrences that come before an event or learning situation interfere with one's ability to learn or remember; in retroactive interference, the occurrence that interferes with remembering comes after the event or learning situation.

One's mental state, according to many psychologists, has much to do with one's ability to learn, retain, and recall information. If one is suffering from grief or loss, one's ability to remember will be severely impaired. Children who are abused often have difficulties learning and remembering, since they are preoccupied with the worries and concerns caused by their traumatic home situation. People suffering from depression also may have problems remembering. Counseling or therapy will sometimes alleviate a person's emotional concerns and therefore result in better recall. Emotional problems that may be helped in this way include depression, anxiety, and fear of failure.

There has been debate among psychologists as to whether information stored in long-term memory is stored there permanently. Some memory theorists believe that a decay or fading factor is at work when one forgets information. That is, memory traces naturally fade away and are lost simply because of the passage of time. If one is a freshman in college, one may remember many members of one's senior class in high school very well. In another ten years, however, one may be less able to remember one's classmates and may have forgotten some of those with whom one had only superficial friendships. In twenty years, more information will fade unless one actively tries to rehearse or review the people who were in the class. For example, if one takes out one's high school yearbook every June for twenty years and reminisces about the people in it, one will better be able to recall the names at a twenty-fifth high school reunion.

Some theorists believe that if one can link or associate people, places, or events with other things, one may be able to recall past people or events more effectively. This theory holds that people's minds normally tend to associate one thing with another. These "associationistic" theories are based on the idea that bonds are formed in the brain between places or bits of information. If the bonds are inadequately or poorly formed, then forgetting may occur; bonds must periodically be re-formed to guard against forgetting.

The psychoanalytic (or Freudian) perspective on forgetting emphasizes the idea that people "forget" events that are emotionally traumatic. This is motivated, or purposeful, forgetting; the Freudian term for it is "repression." An example would be a woman who, as a six-year-old girl, had been sexually molested by her father or another relative and who has since forgotten the incident. Interestingly, repression has been known to occur in both victims and perpetrators of violent crimes.

Applications

Two different types of tests are used to assess memory and learning; one type tests recognition, while the other tests recall. A multiple-choice test assesses the first type of memory, because in this type of test one needs to recognize the correct answer when one sees it. An essay examination tests recall—all the responsibility is on the learner to recall as much relevant information as he or she can.

Research on memory and forgetting can be applied in both academic and nonacademic settings. There are a number of things one can do to aid learning and protect against forgetting. Overlearning is one tactic that ensures that one has learned material and will remember it later. In this technique, a student repeats the material by rehearsing it in his or her head to ensure later recall. If one needs to learn a formula, one may repeat it over and over—perhaps writing it a hundred times. This can be tedious, which undoubtedly spurred the search for other options to learn and remember more effectively. Constant review is another strategy. In spaced practice, students study materials to be learned for one hour each night before the test. These students seem to remember the material better than those who spent eight hours studying the material the night before the test. (That type of study—"cramming"—is called massed practice.) For some students, cramming does work, but the material is easily forgotten following its use immediately after the cramming session. Cramming also creates anxiety and fatigue, which may interfere with optimal performance. It is important to eat and sleep well the night before a test.

Some students with poor organizational skills need to expend extra effort to organize the material they have learned. They may employ index cards, for example, to help group and link relevant materials. Mnemonics are memory tricks or devices that help one recall information. The poem that begins "Thirty days have September, April, June, and November," for example, helps one remember the number of days in each month. The word "homes" is frequently used as an acronym for the names of the Great Lakes—Huron, Ontario, Michigan, Erie, and Superior.

Note taking is one way to minimize forgetting; reviewing notes can help one prepare for an examination. For this to be most effective, however, one must be able to discriminate between useful and unimportant information at the time of writing the material down. The same holds true for underlining or highlighting material in books or notes. Taping lectures for later review is particularly useful in cases where a lecturer speaks very rapidly, making effective note taking difficult. Tapes are also effective and important aids in learning a foreign language. One advantage is that material can be reviewed in the car or while using a portable cassette player.

Concentration is an important part of learning and remembering, and people do not often spend enough time concentrating intensely. It has been said that thirty minutes of concentrated, uninterrupted study is better than two hours of haphazard study. The minimizing of outside stimuli is also important; one should study in a quiet place with few distractions. Studying in the same place (and at the same time) every night is also thought to be important for optimal results. Learning should also

be active in order to minimize forgetting. Making decisions regarding material to be learned is a useful tool for facilitating learning; one may ask oneself questions about topics or subjects in order to learn or review. Students should be prompted to think about their own learning styles and to allot the necessary time to learn a given amount of material. Many people have their own preferred learning style. Some people learn better by seeing data and information; others assimilate information better by hearing it. Ideally, one should find and maximize one's preferred mode. There are tests designed to determine one's preferred mode of learning.

If one is trying to assimilate too much information in too short a time, one may experience "information overload." Students taking summer classes in which a semester's worth of information is compressed into a few weeks experience this, as may those taking eighteen or more hours of classes in a semester. This may also affect someone beginning a new job that involves mastering a large amount of information or technical material. Material that is meaningful to the learner has been found to be easier to remember and recall.

Perspective and Prospects

The mysteries of remembering and forgetting have certainly fascinated humankind for hundreds, even thousands, of years. In the late nineteenth century, memory was one of the areas of interest to early psychologists such as Hermann Ebbinghaus and William James. Ebbinghaus conducted an experiment in 1885 in which he tested his own memory; he graphed a "forgetting curve," illustrating how much information on a particular list he forgot over time. William James wrote about the "tip-of-the-tongue" phenomenon in 1890, evocatively describing the "gap" that exists in the place of a name one is trying to recall as "intensely active" and containing the "wraith of the name" beckoning within it.

Research on memory has explored many avenues; among them are memory losses that are attributable to physical or physiological causes. Head injuries, for example, can cause difficulties remembering certain information after an accident. In cases of brain tumor, when certain parts of the brain are removed, aspects of memory may be irreparably lost. Alcoholics who drink heavily for many years frequently encounter difficulties remembering; this condition is sometimes termed Korsakoff syndrome. Those who use drugs may also experience memory impairment; actual brain damage may occur in such cases. Older people with Alzheimer's disease or other types of dementia have trouble remembering. Strokes or internal injuries can also cause memory loss, as can epilepsy; during an epileptic seizure, oxygen is not getting to the brain, a condition that may result in brain damage and memory loss.

It is not known exactly how people learn or why they remember or forget. Some psychologists posit that the brain's chemical makeup and activity (particularly involving those substances known as neurotransmitters) are central to learning and remembering; others contend that the brain's electrical activity is crucial in determining one's memory. If there is either a chemical or an electrical abnormality in the brain, people may have difficulties learning or recalling information and events that have been learned.

With newer methodologies for brain scanning, including such noninvasive procedures as nuclear magnetic resonance (NMR) imaging, positron emission tomography (PET) scanning, and computerized axial tomography (CAT) scanning, researchers may be better able to probe various physiological reasons for forgetting. With more and more data available to be learned, research on memory and forgetting will continue to be imperative. Teachers must teach students how to learn and remember, and students must participate actively in the learning process as well as employ many of the available tactics for aiding recall.

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reference book for the serious investigator of human memory in all of its complexities.

Michael F. Shaughnessy

See also:

Alzheimer's Disease; Brain Disorders; Dementia; Memory Loss.

Geriatric Psychiatry

Type of psychology: Developmental psychology
Fields of study: Adulthood; interpersonal relations

This subspecialty of psychiatry deals with the diagnosis and treatment of psychiatric syndromes experienced by older people.

Principal terms

ACUTE CONFUSION SYNDROME: a transient condition caused by the action of various biological stressors on vulnerable older persons, who may experience inattention, disorganized thinking, other cognitive impairments, and emotional problems

ANXIETY: a condition characterized by nervousness or agitation; in older people, it is often caused by the existence of a psychiatric disorder such as depression, a general medical condition such as hypothyroidism, or a side effect of medication

DEPRESSION: a condition characterized by a persistent mood of sadness, weight loss, greatly decreased interest in life, and sometimes psychotic episodes; biological factors, family history of depression, underlying medical problems, and medication side effects all can contribute to these symptoms

HYPOCHONDRIASIS: a condition in which the patients believe strongly that they are suffering from one or more serious illnesses, even when this belief is unsupported by medical evidence

INSOMNIA: disturbed sleep, which occurs in older people more often than in any other age group; insomnia in older people can be caused by many factors, such as dysfunctional sleep cycle, breathing problems, leg jerking, underlying medical and psychiatric disorders, and the side effects of medication

MEMORY LOSS SYNDROME: a condition in which a person gradually but progressively loses capacity in many cognitive areas, but especially in the ability to remember; Alzheimer's disease is considered the most common factor causing serious memory loss in older people

SUSPICIOUSNESS: a range of symptoms from increasing distrust of others to paranoid delusions of conspiracies; changes related to aging are thought to be major factors causing increased suspiciousness in older people

Overview

Growing numbers of old and very old people and the increased complexity of diagnosis and treatment of this age group has driven the growth of geriatric psychiatry. Psychiatrists who specialize in working with the geriatric population note that the psychiatric problems experienced by older people often fit poorly in the diagnostic categories set down in the *Diagnostic and Statistical Manual of Mental Disorders* (4th ed., 1994, DSM-IV). The interplay among declining physical health, decreasing mental functioning, social withdrawal and isolation, and

The need for specialists in geriatric psychiatry has increased with rising life expectancies in the United States. (Digital Stock)

vulnerability to stress makes proper diagnosis and appropriate treatment more difficult. In response to this complexity, practitioners of geriatric psychiatry tend to take a broader approach to diagnosis and to use an interdisciplinary model in developing a treatment plan. The profession of geriatric psychiatry has developed most in Great Britain and Canada but is attracting growing numbers of practitioners in the United States and other Western countries.

Applications

Geriatric psychiatrists tend to follow the lead of specialists in geriatric medicine, who have found that taking a syndromal approach to diagnosis appears to work better with older patients. Among the psychiatric syndromes used by geriatric psychiatrists are acute confusion, anxiety, depression, hypochondriasis, insomnia, memory loss, and suspiciousness. Special attention must be given by geriatric psychiatrists to the older person's overall ability to function, general health status, social support system, family history, and preexisting conditions. Geriatric psychiatrists are forced to acknowledge the role played by changes in the brain as it ages and to separate changes that are relatively benign from those that pose real threats to the patient. Hospitalization and significant medical intervention tend to occur more often in the later stages of a person's life, and geriatric psychiatrists are aware that these events can have a great impact on the patient's mental well-being.

When they can, geriatric psychiatrists draw readily upon the help of other health care providers in treating the older person, including the use of specially qualified clinical psychologists, social workers, nurses, occupational therapists, speech pathologists, dietitians, and physical therapists. Improving the understanding of family members and providing them with supportive advice and services can be an important part of the overall treatment plan.

Perspective and Prospects

In the United States, federal funding has expanded for qualified providers, such as clinical psychologists and social workers, to render mental health services for older people, especially those who live in long-term care facilities. Funds have increased for the proper training of those who provide mental health services to older people. Examinations have been established to show evidence of "added qualifications" in geriatric medicine and psychiatry. More textbooks and specialty journals devoted to geriatric mental health are now in circulation. The federal government has sponsored important national conferences on various aspects of geriatric mental health. With the cost of hospitalized and long-term care continuing to rise, more emphasis has been given to preventive services and day care services.

Furthermore, some hospitals have established specialized geropsychiatric units to improve diagnosis and treatment and to decrease the time that older people spend in the hospital. Services are expected to increase for adult children who care for older parents with mental illnesses. Research efforts have increased concerning the causes and appropriate treatment of psychiatric problems in older people. Older people are becoming healthier as they learn more about how mental and physical health are affected by the way in which one lives: Older people are advised to stop smoking, eat a better diet, exercise more, and continue to take an active part in family and community life. All these trends are expected to continue in the future.

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Russell Williams

See also:

Alcoholism; Alzheimer's Disease; Anxiety Disorders; Brain Disorders; Dementia; Depression; Domestic Violence; Grief and Guilt; Hypochondriasis, Conversion, Somatization, and Somatoform Pain; Memory Loss; Neurosis; Paranoia; Phobias; Psychosomatic Disorders; Sexual Dysfunction; Sleep Apnea Syndromes and Narcolepsy; Stress; Suicide.

Gestalt Therapy

Type of psychology: Psychotherapy
Fields of study: Humanistic therapies

Gestalt therapy, founded by Fritz Perls, is an outgrowth of the existential-humanistic approach to psychotherapy. It focuses on nonverbal behaviors, dreams, and current thoughts and emotions; as clients become more aware of denied feelings, their innate healing powers are activated.

Principal terms

DREAMWORK: the Gestalt process of determining the meaning of one's dreams by role-playing the various parts of the dream

EMPTY-CHAIR TECHNIQUE: a Gestalt procedure in which one discusses an interpersonal conflict by addressing an empty chair as though the other person were seated in it

EXISTENTIAL-HUMANISTIC PSYCHOTHERAPY: an approach to psychotherapy that stresses one's freedom to make choices, responsibility, and the innate goodness of human beings

HERE AND NOW: a term used in Gestalt therapy that refers to allowing the client to focus only on present thoughts and feelings

HOT SEAT: a term used in Gestalt group therapy for the situation in which one of the clients sits in front of the therapist

Overview

Gestalt therapy emerged during the 1960's as a powerful alternative to the main two available therapeutic techniques, psychoanalysis and behavioral therapy. This approach to therapy, founded by Frederick (Fritz) Perls, attempts to integrate clients' thoughts, feelings, and actions into a unified whole; *Gestalt*, in fact, is the German word for "whole." Gestalt therapists believe that emotional problems as well as some of the dissatisfactions experienced by ordinary individuals are attributable to a lack of recognizing and understanding one's feelings. The fast pace of technological society and the general loss of purpose in individuals' lives has led to a numbing of emotions. Gestaltists believe that many people deny or lose parts of themselves when they are faced with the overwhelming task of coping in society; for example, a person may deny anger toward a loved one.

The role for the Gestalt therapist is to help the client become more aware of the split-off emotions. The therapist takes an active role by requiring the patient to talk about current experiences and feelings. The patient is neither allowed to look for explanations or problems from the past nor expected to talk about future plans. Gestaltists believe that anxiety is the result of an excessive focus on the future. The client is expected to attend to current feelings and experiences—to stay in the "here and now."

Gestalt therapy arose from the existential-humanistic school of psychology.

Prior schools had portrayed individuals rather pessimistically, believing that human beings are relatively evil creatures whose actions are determined by forces outside their control (such as instincts or the environment). People were seen as adaptive hedonists trying to receive the greatest amount of pleasure for the least amount of effort. The existential-humanistic school of psychology portrays individuals more optimistically, believing people innately strive to achieve their fullest human potential. Failure to do so is not the result of an evil nature but rather the fault of obstacles on this path to perfection. Gestalt therapists agree with the existential-humanistic focus on individual responsibility. One freely chooses one's actions and therefore is responsible for them. There is no provision for blaming a past situation or one's current environment. Gestalt therapists encourage independence and uniqueness in their clients. They push them to be themselves rather than adopting the "shoulds" and "oughts" recommended by society. Perls emphasized this focus on independence and responsibility by stating that the process of maturation is moving from environmental support to self-support.

Probably the greatest contribution of the Gestalt style of therapy has been the techniques developed to increase individual self-awareness. These techniques are consistent with the belief that emotional problems stem from avoidance of or failure to recognize one's feelings. The Gestalt therapist is very active and confrontational during the therapy session (in fact, in a group setting, talking to the therapist is called taking the "hot seat") and frequently interprets and questions the client's statements. The goal is a genuine relationship between two individuals, free of normal social conventions, in which a free exchange of thoughts and feelings can take place.

In one technique of Gestalt therapy, called the "dreamwork," the client reports a recent dream. The Gestalt school believes that the events in a dream represent fragmented and denied parts of the personality. Rather than search for explanations in one's childhood, as in the approach of dream analysis originated by Sigmund Freud, clients are encouraged to bring the dream into the present by acting out different parts of the dream. Rather than say "There was a train in my dream," they are required to act out the part of the train. They might say "I am a train. I am very powerful and useful as long as I stay on track." This moves the focus of the dream into the here and now.

Another therapeutic technique used by Gestalt therapists involves a focus on and exaggeration of nonverbal behaviors. Gestaltists believe that much denied information is accessible through body language. For example, a client may state that she is happy and content in a relationship, while she is scowling and keeping her arms and legs crossed in a tight and tense fashion. Gestalt therapists help their clients become aware of these feelings by getting them to exaggerate their actions. A man who is talking about his wife while clenching his hand in a fist and tapping it on the table may be told to clench his fist tighter and bang it hard on the table. This exaggeration of nonverbal behavior would be to make him acutely aware of his anger toward his wife.

Another well-known procedure developed by the Gestalt school of psychotherapy is the "empty-chair technique." This strategy is employed to bring past

conflicts into the here and now, where feelings can be reexperienced. The client often will relate to the therapist a disagreement with some significant other. Rather than ask for details of the encounter (a procedure that keeps the focus in the past), the therapist will encourage the client to address an empty chair in the office as though that person were sitting in it. The client must role-play the relevant situation. The therapist may also get the client to play the part of the significant other in the empty chair. This switching back and forth of chairs and roles is a powerful technique to foster empathy, understanding, and a clarification of feelings. This technique can be used not only for conflicts between individuals but also for discrepant feelings within one person.

Applications

The Gestalt approach to psychotherapy is best explained by examples. A student once reported a dream in which she remembered a gum wrapper being dropped outside a nearby church. Rather than search for a meaning of the dream's symbols in her childhood, her friend, a clinical psychologist, asked her to become the elements in the dream. She initially chose the gum wrapper. She stated that as a gum wrapper she concealed something very good and appealing and that most people took the good part from inside her and then threw her away. She stated that she felt like trash littered on a beautiful lawn and that eventually some caring person would come and throw her away.

The student then began to play the role of the church in the dream. She stated that as a church she was a beautiful building constructed from caring hands. She indicated that good things happened inside her but that she was used too infrequently. Many people were afraid or disliked coming to her, she said, and most of the time she was empty inside. The student was surprised as she completed this description of the dream. She talked about the similarity of her explanations of the two elements in the dream. When asked if she felt this way, she stated that this idea at first surprised her somewhat; however, as she continued to elaborate, she became more aware of her feelings of emptiness and loneliness. She had become aware of denied aspects of her emotions.

Gestalt therapy's active focus on nonverbal behavior and denied portions of the personality often can be quite dramatic. The judicious use of these techniques may allow insights into dynamics that are not available through ordinary interpersonal interactions. In one case, a family was being seen by co-therapists in family therapy. The family consisted of a mother, father, son, and daughter. The son was the identified troublemaker in the family, and he demonstrated a wide range of symptoms that caused the family much pain and suffering. During the course of therapy, it became apparent that the mother was an unwitting co-conspirator in these troubles. She often would rescue her son from his precarious and often dangerous situation and restore matters to normal. This served the function of ensuring her role as a "good mother," while providing the son with the reassurance that he was loved by her. Whenever she threatened not to rescue him, he accused her of not caring for him. She inevitably crumbled and provided for his needs. The father and daughter had their own alliance in the family and, although they

complained, they did not interfere in this dysfunctional family pattern that frequently ended in severe problems.

The two therapists hypothesized the pathological nature of this interaction and periodically attempted to present it to the family; however, the pattern was so important and so entrenched in the family's style of interaction that any mention of it led to vehement protests and denials that it was an issue of importance. During a therapy session, one of the therapists noticed the pattern in which the family members usually seated themselves. The mother and son sat close to each other on one side of the therapy room, while the father and daughter sat near each other across from them. The two therapists sat across from each other on the other sides of the room. One therapist, taking a cue from the Gestalt emphasis on the importance of nonverbal behaviors, moved his chair and sat in the small space between the mother and son. A stunned silence ensued. The mother and son began to show agitation, while the father and daughter, from across the room, became increasingly amused at the nature of this interaction. The therapists elicited the reactions and analyses of the family to this new seating arrangement. The mother and son continued to display uncertainty and bewilderment, while the father and daughter immediately identified that someone had dared to come between "Mom and her boy." This led to a more open discussion of the pathological nature of the family interactions. The father and daughter could see that they had allowed this damaging pattern to continue. The mother and son, while not quite as open to this discovery because of the threatening nature of the disclosure, could not deny the emotions that were aroused from someone physically invading their territory. The insights that resulted from this simple Gestalt technique moved therapy along much faster than had previous verbal interactions. It demonstrates the Gestalt tenet that a focus on nonverbal patterns of communication may allow clients to become aware of previously denied aspects of their personalities.

Perspective and Prospects

Gestalt therapy emerged during a period of increased popularity for the existential-humanistic position in psychology. This approach, sometimes known as the "third force" in psychology, came from opposition to the earlier forces of psychoanalysis and behaviorism. Existential-humanistic proponents objected to the pessimistic psychoanalytic view of humans as vile creatures held captive by primitive, unconscious desires. They also differed from the environmental determinism set forth by the behavioral school that people are simply products of past punishments and rewards. The existential-humanistic therapists focused on the human freedom to choose one's actions (regardless of unconscious desires and past consequences), the relative goodness of the human species, and people's innate desire to reach their fullest potential. This approach fit well with the period of great social upheaval and change following World War II.

The Gestalt approach often is compared to the client-centered (or person-centered) therapy of Carl Rogers. Both types of psychotherapy endorse the basic assumptions of the existential-humanistic school; however, they differ considerably in their approach and techniques. In client-centered therapy, the client is

encouraged to express his or her thoughts and feelings about a situation. The therapist remains relatively passive, giving minimal verbal prompts or paraphrasing the client's statements. The client is responsible for the direction and content of the therapy session; the therapist provides only a clarification of unclear statements or feelings. The idea behind this approach is that the therapist is providing an atmosphere of unconditional acceptance in which the client can explore his or her emotional issues. Eventually, the client's innate curative ability will take over. The Gestalt therapist, in contrast, is much more confrontational in interpreting statements and asking questions. The Gestalt approach places a greater emphasis on the interpretation of nonverbal behaviors and the usefulness of dreams. Although different in technique, both approaches point to the freedom to choose, the innate goodness of the client, and the strength of the therapeutic relationship as curative factors.

The influence of the Gestalt approach to psychotherapy diminished with the death of Fritz Perls in 1970. He was the emotional and spiritual leader of the group, and his charisma was not replaced easily. Gestalt therapy is not considered a mainstream psychotherapy; however, it does have numerous enthusiastic followers. The greatest contribution of the Gestalt orientation has been the techniques developed to assist clients in becoming more aware of hidden thoughts and emotions. Therapists from a wide variety of orientations have adapted and applied these procedures within their own theoretical framework. The impact of dreamwork, the hot seat, nonverbal interpretations, and the empty-chair techniques seems to have outlasted the theory from which they came.

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Brett L. Beck

See also:

Abnormality: Humanistic-Existential Models; Group Therapy; Person-Centered Therapy; Psychotherapy: Goals and Techniques.

Grief and Guilt

Type of psychology: Social psychology; stress
Fields of study: Coping; critical issues in stress; interpersonal relations

Grief and accompanying guilt are common reactions to the fact or eventuality of serious losses of various kinds, especially death; every person eventually experiences grief, and while grief is normal, its effects can be incapacitating.

Principal terms

ABNORMAL GRIEF: an unhealthy response to a loss, which may include anger, an inability to feel loss, withdrawal, and deterioration in health

GRIEF: a multifaceted physical, emotional, psychological, spiritual, and social reaction to loss

GUILT: a cognitive and emotional response often associated with the grief experience in which a person feels a sense of remorse, responsibility, and/or shame regarding the loss

LOSS: the sudden lack of a previously held possession, physical state, or social position or the death of a loved one

Causes and Symptoms

During life, people unavoidably experience a variety of losses. These may include the loss of loved ones, important possessions or status, health and vitality, and ultimately the loss of self through death. "Grief" is the word commonly used to refer to an individual's or group's shared experience following a loss. The experience of grief is not a momentary or singular phenomenon. Instead, it is a variable, and somewhat predictable, process of life. Also, as with many phenomena within the range of human experience, it is a multidimensional process including biological, psychological, spiritual, and social components.

The biological level of the grief experience includes the neurological and physiological processes that take place in the various organ systems of the body in response to the recognition of loss. These processes, in turn, form the basis for emotional and psychological reactions. Various organs and organ systems interact with one another in response to the cognitive stimulation resulting from this recognition. Human beings are self-reflective creatures with the capacity for experiencing, reflecting upon, and giving meaning to sensations, both physical and emotional. Consequently, the physiological reactions of grief that take place in the body are given meaning by those experiencing them.

The cognitive and emotional meanings attributed to the experience of grief are shaped by and influence interactions within the social dimensions of life. In other words, how someone feels or thinks about grief influences and is influenced by interactions with family, friends, and helping professionals. In addition, the individual's religious or spiritual frame of reference may have a significant influence on the subjective experience and cognitive-emotional meaning attributed to grief.

The loss of a life partner, particularly after a lengthy relationship, is a source of intense grief and may trigger guilt in the survivor. (PhotoDisc)

The grief reactions associated with a loss such as death vary widely. While it is very difficult and perhaps unfair to generalize about such an intensely personal experience, several predictors of the intensity of grief have become evident. The amount of grief experienced seems to depend on the significance of the loss, or the degree to which the individual subjectively experiences a sense of loss. This

subjective experience is partially dependent on the meaning attributed to the loss by the survivors and others in the surrounding social context. This meaning is in turn shaped by underlying belief systems, such as religious faith. Clear cognitive, emotional, and/or spiritual frameworks are helpful in guiding people constructively through the grief process.

People in every culture around the world and throughout history have developed expectations about life, and these beliefs influence the grief process. Common questions in many cultures include "Why do people die?" "Is death a part of life, or a sign of weakness or failure?" "Is death always a tragedy, or is it sometimes a welcome relief from suffering?" and "Is there life after death, and if so, what is necessary to attain this afterlife?" The answers to these and other questions help shape people's experience of the grief process. As Elisabeth Kübler-Ross states in *Death: The Final Stage of Growth* (1975), the way in which a society or subculture explains death will have a significant impact on the way in which its members view and experience life.

Another factor that influences the experience of grief is whether a loss was anticipated. Sudden and/or unanticipated losses are more traumatic and more difficult to explain because they tend to violate the meaning systems mentioned above. The cognitive and emotional shock of this violation exacerbates the grief process. For example, it is usually assumed that youngsters will not die before the older members of the family. Therefore, the shock of a child dying in an automobile crash may be more traumatic than the impact of the death of an older person following a long illness.

Death and grief are often distasteful to human beings, at least in Western Judeo-Christian cultures. These negative, fearful reactions are, in part, the result of an individual's difficulty accepting the inevitability of his or her own death. Nevertheless, in cultures which have less difficulty accepting death and loss as normal, people generally experience more complicated grief experiences. The Micronesian society of Truk is a death-affirming society. The members of the Truk society believe that a person is not really grown up until the age of forty. At that point, the individual begins to prepare for death. Similarly, some native Alaskan groups teach their members to approach death intentionally. The person about to die plans for death and makes provisions for the grief process of those left behind.

In every culture, however, the grief-stricken strive to make sense out of their experience of loss. Some attribute death to a malicious intervention from the outside by someone or something else; death becomes frightening. For others, death is in response to divine intervention or is simply the completion of "the circle of life" for that person. Yet for most people in Western societies, even those who come to believe that death is a part of life, grief may be an emotional mixture of loss, shock, shame, sadness, rage, numbness, relief, anger, and/or guilt.

Kübler-Ross points out in her timeless discourse "On the Fear of Dying" (*On Death and Dying*, 1969) that guilt is perhaps the most painful companion of death and grief. The grief process is often complicated by the individual's perception that he or she should have prevented the loss. This feeling of being responsible for the death or other loss is common among those connected to the deceased. For

example, parents or health care providers may believe that they should have done something differently in order to detect the eventual cause of death sooner or to prevent it once the disease process was detected.

Guilt associated with grief is often partly or completely irrational. For example, there may be no way that a physician could have detected an aneurysm in her patient's brain prior to a sudden and fatal stroke. Similarly, a father cannot monitor the minute-by-minute activities of his adolescent children to prevent lethal accidents. Kübler-Ross explains a related phenomenon among children who have lost a parent by pointing out the difficulty in separating wishes from deeds. A child whose wishes are not gratified by a parent may become angry. If the parent subsequently dies, the child may feel guilty, even if the death is some distance in time away from the event in question.

The guilt may also involve remorse over surviving someone else's loss. People who survive an ordeal in which others die often experience "survivor's guilt." Survivors may wonder why they survived and how the deceased person's family members feel about their survival, whether they blame the survivors or wish that they had died instead. As a result, survivors have difficulty integrating the experience with the rest of their lives in order to move on. The feelings of grief and guilt may be exacerbated further if survivors believe that they somehow benefited from someone else's death. A widow who is suddenly the beneficiary of a large sum of money attached to her husband's life insurance policy may feel guilty about doing some of the things that they had always planned but were unable to do precisely because of a lack of money.

Lastly, guilt may result when people believe that they did not pay enough attention to, care well enough for, or deserve the love of the person who died. These feelings and thoughts are prompted by loss—loss of an ongoing relationship with the one who died, as well as part of the empathetic response to what it might be like to die oneself.

Feelings of guilt are not always present, even if the reaction is extreme. If individuals experience guilt, however, they may "bargain" with themselves or a higher power, review their actions to find what they did wrong, take a moral inventory to see where they could have been more loving or understanding, or even begin to act self-destructively. Attempting to resolve guilt while grieving loss is doubly complicated and may contribute to the development of what is considered an abnormal grief reaction.

The distinctions between normal and abnormal grief processes are not clear-cut and are largely context-dependent; that is, what is normal depends on standards that vary among different social groups and historical periods. In addition, at any particular time the variety of manifestations of grief depend on the individual's personality and temperament; family, social, and cultural contexts; resources for coping with and resolving problems; and experiences with the successful resolution of grief.

Despite this diversity, the symptoms that are manifested by individuals experiencing grief are generally grouped into two different but related diagnostic categories: depression and anxiety. It is normal for the grieving individual to manifest

symptoms related to anxiety and/or depression to some degree. For example, a surviving relative or close friend may temporarily have difficulty sleeping, or feel sad or that life has lost its meaning. Relative extremes of these symptoms, however, in either duration or intensity, signal the possibility of an abnormal grief reaction.

In *Families and Health* (1988), family therapist William Doherty and family physician Thomas Campbell identify the signs of abnormal grief reactions as including periods of compulsive overactivity without a sense of loss; identification with the deceased; acquisition of symptoms belonging to the last illness of the deceased; deterioration of health in the survivors; social isolation, withdrawal, or alienation; and severe depression. These signs may also include severe anxiety, abuse of substances, work or school problems, extreme or persistent anger, or an inability to feel loss.

Treatment and Therapy

There is no set time schedule for the grief process. While various ethnic, cultural, religious, and political groups define the limits of the period of mourning, they cannot prescribe the experience of grief. Yet established norms do influence the grief experience inasmuch as the grieving individuals have internalized these expectations and standards. For example, the typical benefit package of a professional working in the United States offers up to one week of paid "funeral" leave in the event of the death of a significant family member. On the surface, this policy begins to prescribe or define the limits of the grief process.

Such a policy suggests, for example, that a mother or father stricken with grief at the untimely death of a child ought to be able to return to work and function reasonably well once a week has passed. Most individuals will attempt to do so, even if they are harboring unresolved feelings about the child's death. Coworkers, uncomfortable with responding to such a situation and conditioned to believe that people need to "get on with life," may support the lack of expression of grief.

Helpful responses to grief are as multifaceted as is grief itself. Ultimately, several factors ease the grief process. These include validating responses from significant others, socially sanctioned expression of the experience, self-care, social or religious rituals, and possibly professional assistance. Each person responds to grief differently and requires or is able to use different forms of assistance.

Most reactions to loss run a natural, although varied, course. Since grief involves coming to grips with the reality of death, acceptance must eventually be both intellectual and emotional. Therefore, it is important to allow for the complete expression of both thoughts and feelings. Those attempting to assist grief-stricken individuals are more effective if they have come to terms with their own feelings, beliefs, and conflicts about death, and any losses they personally have experienced.

Much of what is helpful in working through grief involves accepting grief as a normal phenomenon. Grief-related feelings should not be judged or overly scrutinized. Supportive conversations include time for ventilation, empathic responses, and sharing of sympathetic experiences. Helpful responses may take the form of "To feel pain and sadness at this time is a normal, healthy response" or "I don't

know what it is like to have a child die, but it looks like it really hurts" or "It is understandable if you find yourself thinking that life has lost its purpose." In short, people must be given permission to grieve. When it becomes clear that the person is struggling with an inordinate amount of feelings based on irrational beliefs, these underlying beliefs—not the feelings—may need to be challenged.

People tend to have difficulty concentrating and focusing in the aftermath of a significant loss. The symptoms of anxiety and depression associated with grief may be experienced, and many of the basic functions of life may be interrupted. Consequently, paying attention to healthy eating and sleeping schedules, establishing small goals, and being realistic about how long it may take before "life returns to normal" are important.

While the prescription of medication for the grief-stricken is fairly common, its use is recommended only in extreme situations. Antianxiety agents or antidepressants can interfere with the normal experiences of grief that involve feeling and coming to terms with loss. Sedatives can help bereaved family members and other loved ones feel better over the short term, with less overt distress and crying. Many experts believe, however, that they inhibit the normal grieving process and lead to unresolved grief reactions. In addition, studies suggest that those who start on psychotropic medication during periods of grief stay on them for at least two years.

The grief process is also eased by ritual practices that serve as milestones to mark progress along the way. Some cultures have very clearly defined and well-established rituals associated with grief. In the United States, the rituals practiced continue to be somewhat influenced by family, ethnic, and regional cultures. Very often, however, the rituals are confined to the procedures surrounding the preparation and burial of the body (for example, viewing the body at the mortuary, a memorial service, and interment). As limited as these experiences might be, they are designed to ease people's grief. Yet the grief process is often just beginning with the death and burial of the loved one. Consequently, survivors are often left without useful guidelines to help them on their way.

Another common, although unhelpful, phenomenon associated with the process is for the grief-stricken person initially to receive a considerable amount of empathy and support from family, friends, and possibly professionals (such as a minister or physician) only to have this attention drop off sharply after about a month. The resources available through family and other social support systems diminish with the increasing expectation that the bereaved should stop grieving and "get on with living." If this is the case, or if an individual never did experience a significantly supportive response from members of his or her social system, the role of psychotherapy and/or support groups should be explored. Many public and private agencies offer individual and family therapy. In addition, in many communities there are a variety of self-help support groups devoted to growth and healing in the aftermath of loss.

Perspective and Prospects

The grief process, however it is shaped by particular religious, ethnic, or cultural contexts, is reflective of the human need to form attachments. Grief thus reflects

the importance of relationships in one's life, and therefore it is likely that people will always experience grief (including occasional feelings of guilt). Processes such as the grief experience, with its cognitive, emotional, social, and spiritual dimensions, may affect an individual's psychological and physical well-being. Consequently, medical and other health care and human service professionals will probably always be called upon to investigate, interpret, diagnose, counsel, and otherwise respond to grief-stricken individuals and families.

In the effort to be helpful, however, medical science has frequently intervened too often and too invasively into death, dying, and the grief process—to the point of attempting to disallow them. For example, hospitals and other institutions such as nursing homes have become the primary place that people die. It is important to remember that it has not always been this way. Even now in some cultures around the world, people die more often in their own homes than in a "foreign" institution.

In the early phases of the development of the field of medicine, hospitals as institutions were primarily devoted to the care of the dying and the indigent. Managing the dying process was a primary focus. More recently, however, technological advances and specialty development have shifted the mission of the hospital to being an institution devoted to healing and curing. The focus on the recovery process has left dying in the shadows. Death has become equated with failure and associated with professional guilt.

It is more difficult for health care professionals to involve themselves or at least constructively support the grief process of individuals and families if it is happening as a result of the health care team's "failure." In a parallel fashion, society has become unduly fixated on avoiding death, or at least prolonging its inevitability to the greatest possible extent. The focus of the larger culture is on being young, staying young, and recoiling from the effects of age. As a result, healthy grief over the loss of youthful looks, stamina, health, and eventually life is not supported.

Medical science can make an important contribution in this area by continuing to define the appropriate limits of technology and intervention. The struggle to balance quantity of life with quality of life (and death) must continue. In addition, medical science professionals need to redouble their efforts toward embracing the patient, not simply the disease; the person, not simply the patient; and the complexities of grief in death and dying, not simply the joy in healing and living.

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Layne A. Prest

See also:

Child and Adolescent Psychiatry; Depression; Geriatric Psychiatry; Neurosis; Phobias; Psychiatry; Stress; Suicide; Teen Suicide.

Psychology and Mental Health

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Category List

Treatments

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Group Therapy

Type of psychology: Psychotherapy
Fields of study: Group and family therapies

Group therapy allows individuals to enter into the therapeutic process with others who have the same or similar problems. This gives an individual much more freedom of expression and the support of others from within the group.

Principal terms

DISCLOSURE: the point at which a member of a group will share private feelings and concerns

GROUP DYNAMIC: the commonality of purpose that unites a group of people and their desire to succeed

GROUP LEADER: a qualified and trained therapist whose work is to lead the group through the therapeutic process

SESSION: the time span allotted to and agreed on by the group as an acceptable time in which to complete the necessary therapy

THERAPEUTIC PROCESS: the various stages of understanding through which an individual will pass during a therapy session

Overview

Society to a greater or lesser degree always forms itself into some kinds of groupings, whether they are for economic stability, religious expression, educational endeavor, or simply a sense of belonging. Within the field of psychotherapy, many theories and practices have been developed that deal with specific problems facing individuals as they try to relate to their environment as a whole and to become valuable members of society. Available approaches range from psychoanalysis to the more recently formulated transpersonal therapy. Taking advantage of the natural tendency for people to form groups, therapists, since the years following World War II, have developed various forms of group therapy. Therapy groups, although they do not form "naturally," are most frequently composed of people with similar problems.

Among the different types of group counseling available are those that focus on preventive and developmental aspects of living. Preventive group counseling deals with enhancing the individual's understanding of a specific aspect of life. These aspects range from simple job-seeking skills to more complex studies of career changes in midlife. Developmental groups are composed of well-adjusted people who seek to enhance their social and emotional skills through personal growth and transformation. Conversely, group therapy is concerned with remedial help. The majority of people entering group therapy are aware that they have dysfunctional components in their life; they are seeking group work as a possible way of resolving those problems. The size of most groups ranges from four to twelve participants. Sometimes all the members in the group belong to one family, and the

group becomes a specialized one with the emphasis being on family therapy. Treating the problems of one family member in the larger context of the whole family has proved successful.

There are as many approaches to therapy as there are therapists; thus, the direction that any given group takes will be dependent on the group leader. Group leadership is probably the one factor that is vital in enabling a group to succeed in reaching both individual and group goals. Often there will be two therapists involved with the one group, the second therapist sometimes being an intern or trainee.

There are definite advantages, both economic and therapeutic, to group therapy. The economic burden of paying for therapy does not fall solely on one person's shoulders; moreover, the therapist can use his or her time economically, helping a larger number of people. More important, group work may be much more beneficial than individual therapy for certain people. Often the group setting will produce conditions similar to those the member faces in real life and can thus offer an opportunity to face and correct the problem.

In group therapy, a "session" consists of a number of meetings; the number is specific and is usually determined at the beginning by the group leader. Flexibility is a key concept in counseling, however, and if a group requires more time and all the participants agree, then the number of sessions can usually be extended. Therapists have generally come to accept five stages as being necessary for a group to complete a therapy session. These five stages do not have definite boundaries; indeed, if a group experiences problems at any stage, it may return to earlier stages.

Orientation is a necessary first step in establishing a sense of well-being and trust among the group's members. A therapy group does not choose its own members; it is a random and arbitrary gathering of different people. Each member will critically assess the group as to whether this group will benefit them significantly. One way for participants to discover the sincerity of the membership of the group is to reveal something of the problem which brought them to the group in the first place, without going into a full disclosure. An individual can then assess from the responses of the other members of the group whether they are going to be empathetic or critical. After the orientation stage comes the transitional stage, in which more self-revelation is required on the part of the individual members. This is usually an anxious time for members of the therapy group. Yet despite this anxiety, each member must make a commitment to the group and must further define the problem that has brought him or her to the group in the first place.

When the transitional stage has proved successful, the group will be able to begin the third stage, which involves a greater sense of cohesiveness and openness. This sense of belonging is a necessary and important aspect of group therapy. Without this feeling, the subsequent work of resolving problems cannot be fully addressed. By this time, each member of the group will have disclosed some very personal and troubling part of their lives. Once a group cohesiveness has been achieved, the fourth stage—actually wanting to work on certain behavior-modifying skills—becomes dominant. At this point in the therapeutic continuum, the group leader will play a less significant role in what is said or the direction taken. This

seeming withdrawal on the part of the leader allows the group participants to take the primary role in creating changes that will affect them on a permanent basis.

As with all therapeutic methods and procedures, regardless of school or persuasion, a completion or summation stage is vital. The personal commitment to the group must be seen in the larger context of life and one's need to become a part of the greater fabric of living. By consciously creating a finale to the therapy sessions, members avoid being limited in their personal growth through dependence on the group. This symbolic act of stepping away from the group reaffirms all that the group work achieved during the third and fourth stages of the therapeutic process.

Applications

Group work offers participants an opportunity to express their feelings and fears in the hope that behavioral change will take place. Group therapy only takes on significance and meaning when the individual members of the group want to change their old behavioral patterns and learn a new behavioral repertoire. Most individuals come from a background where they have experienced difficulties with other members of their immediate family. Whether the problem has been a spousal difficulty or a parental problem, those who enter into therapy are desperately looking for answers. The very fact that there is more than one person within the group who can understand and sympathize with another's problem begins the process of acceptance and change.

A group will very quickly become close, intimate, and in some ways self-guarding and self-preserving. Through continually meeting with one another in an intense emotional environment, members begin to look upon the group as a very important part of their life. When one member does not come to a meeting, it can create anxiety in others, for the group works as a whole; for one person not to be present undermines the confidence of those who already lack self-esteem. There are also those who come to group meetings and express very little in the way of what is actually bothering them. While even coming into the therapeutic process is one large step, to disclose anything about themselves is too painful. For those who remain aloof and detached, believing that they are the best judge of their own problems, the group experience will be a superficial one.

According to Irvin D. Yalom, therapy is "an emotional and a corrective experience." The corrective aspect of therapy takes on a new meaning when placed in a group setting. There is general agreement that a person who seeks help from a therapist will eventually reveal what is truly troubling him or her. This may take weeks or even months of talking—generally talking around the problem. This is equally true of group participants. Since many difficulties experienced by the participants will be of an interpersonal nature, the group acts as a perfect setting for creating the conditions in which those behavioral problems will manifest. One major advantage that the group therapist has over a therapist involved in individual therapy is that the conditions that trigger the response can also be observed.

For those people who believe that their particular problem inhibits them from caring or even thinking about others, particularly the narcissistic or schizoid personality, seeing the distress of others in the group often evokes strong sympathy

and caring. The ability to be able to offer some kind of help to another person often acts as a catalyst for a person to see that there is an opportunity to become a whole and useful member of the greater community. For all of its limitations, the group reflects, to some degree, the actual real-life situations that each of its members experiences each day.

The acknowledgment of another member's life predicament creates a cohesiveness among the members of the group, as each participant grapples with his or her own problems and with those of the others in the group. As each member becomes supportive of all other members, a climate of trust and understanding comes into being. This is a prerequisite for all group discovery, and it eventually leads to the defining of problems and thus to seeking help for particular problems shared by members. When the individual members of a group begin to care and respond to the needs of the other members, a meaningful relationship exists that allows healing to take place. Compassion, tempered by understanding and acceptance, will eventually prove the ingredients of success for participating members.

Perspective and Prospects

Immediately after World War II, the demand for therapeutic help was so great that the only way to cope with the need was to create therapeutic groups. Group therapy did not boast any one particular founder at that time, although among the first counseling theorists to embrace group therapy actively were Joseph Pratt, Alfred Adler, Jacob Moreno, Trigant Burrow, and Cody Marsh. Psychoanalysis, so firmly placed within the schools for individual psychotherapy, nevertheless became one of the first therapeutic approaches to be applied to group therapy. Gestalt therapy and transactional analysis have proved extremely successful when applied to the group dynamic. Fritz Perls was quick to apply his theories to group therapy work, although he usually worked with one member of the group at a time. Gestalt group therapists aim as part of their treatment to try and break down the numerous denial systems which, once overcome, will bring the individual to a new and more unified understanding of life. Eric Berne, the founder of transactional analysis, has postulated that the group setting is the ideal therapeutic setting.

Group therapy has certainly not been fully accepted in all quarters of the therapeutic professions. Advocates of group therapy have attempted to show, through research and studies, that group therapy is equally effective as individual therapy, but this claim has not settled all arguments. In fact, what has been shown is that if the group leader shows the necessary warmth, understanding, and empathy with the members, then success is generally assured. If the group leader is more on the offensive, however—even taking on an attacking position—then the effects are anything but positive.

Group therapy continues to play an important role within the field of professional care. Perhaps what has been lacking and will need to be reassessed is not so much whether the theories work but whether the participants gain as much as they can from group work. There has been a general lack of systematized study and research into the effectiveness of group therapy, especially as far as feedback from the participants of the group therapy experience is concerned. This reluctance on

the part of psychologists and counselors to assess more closely the type of therapy that is being offered will change as participants of group work expect a greater degree of accountability from the professionals who serve them.

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Richard G. Cormack

See also:

Behavioral Family Therapy; Community Psychology; Gestalt Therapy; Person-Centered Therapy; Psychotherapy: Goals and Techniques; Strategic Family Therapy.

Hypochondriasis, Conversion, Somatization, and Somatoform Pain

Type of psychology: Psychopathology
Fields of study: Anxiety disorders; models of abnormality

Conversion, hypochondriasis, somatization, and somatoform pain are a group of mental disorders that are typically referred to as the somatoform disorders. The primary feature of these disorders, as their name suggests, is that psychological conflicts take on a somatic, or physical, form.

Principal terms

CATHARTIC METHOD: a therapeutic procedure in which the patient recalls an earlier emotional trauma in order to express the accompanying tension and unhappiness in a useful manner

CONVERSION DISORDER: the loss or impairment of some motor or sensory function when no organic illness is present

HYPOCHONDRIASIS: a mental disorder in which the person is unrealistically preoccupied with the fear of disease and worries excessively about his or her health

SOMATIZATION DISORDER: a mental syndrome in which the person chronically has a number of vague but dramatic medical complaints, which apparently have no physical cause

SOMATOFORM DISORDERS: a group of mental disorders in which the person has physical complaints or symptoms that appear to be caused by psychological rather than physical factors

SOMATOFORM PAIN: the experience of sensory pain which appears to be caused by psychological rather than physical factors

Causes and Symptoms

Conversion, hypochondriasis, somatization, and somatoform pain are thought by most mental health professionals, such as psychiatrists and clinical psychologists, to be the four major types of somatoform disorders. These disorders are typically studied together because they have an important similarity. With each of these disorders, a psychological conflict is expressed through a somatic, or physical, complaint.

The manifestation of a psychological conflict through a physical complaint is perhaps most apparent with conversion disorders. When an individual suffers from a conversion disorder, the psychological conflict results in some type of disability. While conversion disorders vary widely, some of the most common involve

blindness, deafness, paralysis, and anesthesia (loss of sensation). In all these cases, medical examinations reveal that there is nothing wrong physiologically with the individual. The handicap stems from a psychological or emotional problem.

In many instances, the handicap is thought to develop because it gives the person an unconscious way of resolving his or her conflict. For example, an adult who is feeling powerful yet morally unacceptable feelings of anger and rage may wish to strike his or her young child. Rather than carry out this dreadful action, this person

Josef Breuer, who reported the classic case study of conversion disorder sufferer "Anna O." in 1895.

will suddenly develop a paralyzed arm. The unacceptable emotion impulse is then "converted" (thus the term "conversion") into a physical symptom. When this happens, individuals will sometimes seem strangely unconcerned about their new physical disabilities. They will have what is known by the French term *la belle indifference* (or "beautiful indifference"). While most people would be quite upset if they suddenly became blind or paralyzed, conversion patients will often be rather calm or nonchalant about their disability, because their symptom unconsciously protects them from their desire to act on an unacceptable impulse.

The situation is somewhat different for individuals with hypochondriasis or somatization disorder, since individuals with these syndromes generally do not experience a dramatic physical disability. Individuals with hypochondriasis or somatization disorder are troubled instead either by fear of illness or by complaints about being sick.

With hypochondriasis, the afflicted individual, who is typically referred to as a hypochondriac, often misinterprets ordinary physical symptoms as a sign of some extremely serious illness. For example, the hypochondriac with mild indigestion may think that he or she is having a heart attack. In a similar fashion, a mild headache may be interpreted as a brain tumor. Hypochondriacs are usually quite interested in medical information and will keep a wide array of medical specialists at their disposal. After a visit to the physician, the typical hypochondriac is relieved to learn that he or she does not suffer from some dreaded disease. When this person again experiences an everyday ache or pain, such as muscle soreness or indigestion, however, he or she will again mistakenly believe that he or she has come down with some terrible illness.

While the hypochondriac is typically afraid of having one particular disease, the individual with a somatization disorder will often have numerous medical complaints with no apparent physical cause. Somatization disorder is also sometimes known as Briquet syndrome, because a physician by that name described it in detail in 1859. The individual who develops a somatization disorder, or Briquet syndrome, is known as a somatizer. This person is not bothered by the fear of disease, but rather by the actual symptoms that he or she reports. This individual will generally describe numerous aches and pains in a vague and exaggerated manner. Like the hypochondriac, the somatizer will often seek out frequent, unnecessary medical treatment. The somatizer, however, will be a particularly difficult patient for the physician to handle. The somatizer will often present his or her physician with a long, vague, and confusing list of complaints. At times, it may seem as if the somatizer is actually developing new symptoms as he or she talks to the physician. The dramatic and disorganized manner in which these patients describe their problems, and their tendency to switch from one doctor to the next with great frequency, make somatizers some of the most frustrating patients that medical professionals are likely to encounter.

It will also be difficult for even the most capable of medical professionals to work effectively with an individual who is suffering from somatoform pain. The concept of somatoform pain is a relatively new diagnostic category, in which the individual experiences physical pain that is thought to be caused by emotional

factors. Somatoform pain is similar to conversion disorder, except that the individual experiences pain rather than some type of disability or anesthesia. Since pain is a subjective sensory experience rather than an observable symptom, it is often quite difficult for physicians to determine whether pain is caused by psychological or physical factors. It is therefore very hard to diagnose somatoform pain with any certainty.

The somatoform disorders, like all psychiatric diagnoses, are worth studying only when they can contribute to an understanding of the experience of a troubled individual. In particular, the somatoform disorders are useful when they help show that while an individual may genuinely feel sick, or believe he or she has some physical illness, this is not always the case. There are times when a psychological conflict can manifest itself in a somatic form.

A classic example of this situation is a famous case of conversion disorder that was reported by Josef Breuer and Sigmund Freud in 1895. This case involved "Anna O.," a well-educated and extremely intelligent young Viennese woman who had rapidly become bedridden with a number of mysterious physical symptoms. By the time that Anna O. sought the assistance of Breuer, a prominent Austrian physician, her medical condition was quite serious. Both Anna O.'s right arm and her right leg were paralyzed, her sight and hearing were impaired, and she often had difficulty speaking. She also sometimes went into a rather dreamlike state, which she referred to as an "absence." During these periods of absence, Anna O. would mumble to herself and appear quite preoccupied with disturbing thoughts.

Anna O.'s symptoms were quite troubling to Breuer, since she did not appear to suffer from any particular physical ailment. To understand this young woman's condition, Breuer encouraged her to discuss her symptoms at length, and used hypnosis to explore the history of her illness. Over time, Breuer began to get Anna O. to talk more freely, until she eventually discussed some troubling past events. Breuer noticed that as she started to recall and discuss more details from her emotionally disturbing history, her physical symptoms began to go away.

Eventually, under hypnosis, Anna O. described what Breuer thought was the original trauma that had precipitated her conversion reaction. She indicated that she had been spending a considerable amount of time caring for her seriously ill father. After many days of patiently waiting at her father's bedside, Anna naturally grew somewhat resentful of the great burden that his illness had placed upon her. These feelings of resentment were morally unacceptable to Anna O., who also experienced genuine feelings of love and concern for her father. One day, she was feeling particularly tired as she sat at her father's bedside. She dropped off into what Breuer describes as a waking dream, with her right arm over the back of a chair. After she fell into this trancelike state, Anna O. saw a large black snake emerge from the wall and slither toward her sick father to bite him. She tried to push the snake away, but her right arm had gone to sleep. When Anna O. looked at her right hand, she found that her fingers had turned into little snakes with death's heads.

The next day, when Anna O. was walking outside, she saw a bent branch. This branch reminded her of her hallucination of the snake, and at once her right arm

became rigidly extended. Over time, the paralysis in Anna O.'s right arm extended to her entire right side; other symptoms began to develop as well. Recalling her hallucination of the snake and the emotions that accompanied it seemed to produce a great improvement in her condition. Breuer hypothesized that Anna O. had converted her original trauma into a physical symptom, and was unable to recover until this traumatic memory was properly expressed and discussed. The way in which Breuer treated Anna O. eventually became known as the cathartic method.

Anna O.'s case and the development of the cathartic method eventually led to widespread interest in conversion disorders, as well as in the other types of somatoform disorders. Many mental health professionals began to suspect that all the somatoform disorders involved patients who were unconsciously converting unpleasant or unacceptable emotions into somatic complaints. The manner in which somatoform patients could misinterpret or misperceive their bodily sensations, however, remained rather mysterious. For example, how can an individual who has normal vision truly believe that he or she is blind? Research conducted by the team of Harold Sackheim, Johanna Nordlie, and Ruben Gur has suggested a possible answer to this question.

Sackheim and his colleagues studied conversion patients who believed they were blind. This form of blindness, known as hysterical blindness, can be quite debilitating. Patients who develop hysterical blindness are generally unable to perform their usual functions, and often report total loss of vision. But when the vision of these patients was tested in an empirical fashion, an interesting pattern of results emerged. On each trial of a special visual test there were two time intervals, each of which was bounded by the sounding of a buzzer. During each trial, a bright visual target was illuminated during one of the intervals. Hysterically blind subjects were asked to report whether the visual target was illuminated during the first or the second interval. If truly blind subjects were to attempt this task, they should be correct by chance approximately 50 percent of the time. Most hysterically blind subjects were correct only 20 to 30 percent of the time, as if they were deliberately trying to demonstrate poor vision. A smaller number of hysterically blind subjects were correct on almost every trial, suggesting that they were actually able to see the visual stimuli before them.

Sackheim and his colleagues have suggested that a two-state defensive reaction can explain these conflicting findings. First, the perceptual representations of visual stimuli are blocked from conscious awareness, so that subjects report that they are blind. Then, in the second part of the process, subjects continue to gain information from the perceptual representations of what they have seen. The performance of subjects on a visual task will then depend on whether the subjects feel they must deny access to the information that was gained during the second part of the visual process. If subjects believe that they must deny access to visual information, they will perform more poorly on a visual task than would be expected by chance. If subjects believe that they do not need to deny access to visual information, then they will perform like a normal subject on a visual task. In other words, according to Sackheim and his colleagues, hysterically blind patients base their responses on the consequences of their behavior.

The way in which hysterically blind patients can manipulate their ability to see has led many scholars to question whether these patients are being truthful. Sackheim, Nordlie, and Gur, however, report that there are patients with lesions in the visual cortex (a part of the brain which processes visual information) who report that they are blind. These patients believe that they cannot see, even though they have normal eyes and can respond accurately to visual stimuli. They believe they are blind because they have trouble processing visual information. It is thus possible that an individual can have normal eyesight and still believe that he or she is blind. It may thus be the case that many somatoform patients truly and honestly believe that they have a physical symptom, even though they are actually quite healthy.

Treatment and Therapy

The study of somatoform disorders is an important area of concern for both medical professionals and social scientists. The somatoform disorders are relatively common, and their great prevalence poses a serious problem for the medical establishment. A tremendous amount of professional energy and financial resources is expended in the needless medical treatment of somatoform patients, who really suffer from emotional rather than physical difficulties. For example, when Robert Woodruff, Donald Goodwin, and Samuel Guze compared fifty somatization patients with fifty normal control subjects in 1974, they found that the somatization patients had undergone major surgical procedures three times more frequently than had the normal controls. Since an effort was made to match the somatizing and control patients on the basis of their actual medical condition, one can assume that much of the surgery performed on the somatization patients was unnecessary.

On the other hand, there is also a considerable amount of evidence to indicate that many people who are genuinely ill are misdiagnosed with somatoform disorders. Charles Watson and Cheryl Buranen published a follow-up study of somatization patients in 1979 which found that 25 percent of the patients actually suffered from real physical disorders. It seems physicians who are unable to explain a patient's puzzling medical problems may be tempted to label the patient prematurely with a somatoform disorder. The diagnosis of a somatoform disorder needs to be made with great caution, to ensure that a genuine medical condition will not be overlooked. There is also a need for further research into the causes and nature of the somatoform disorders, so that they can be diagnosed in a more definitive fashion.

Perspective and Prospects

One hopes that further research will also shed light on the ways in which somatoform disorders can be treated. Most somatoform patients are truly in need of assistance, for while their physical illness may be imaginary, their pain and suffering are real. Unfortunately, at this time, it is often difficult for mental health professionals to treat somatoform patients effectively since these individuals tend to focus on their physical complaints rather than on their emotional problems.

More research is needed on the treatment of somatoform patients so that they can overcome the psychological difficulties that plague them.

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Steven C. Abell

See also:

Abnormality: Biomedical Models; Abnormality: Psychodynamic Models; Anxiety Disorders; Grief and Guilt; Phobias; Post-traumatic Stress; Psychosomatic Disorders; Stress: Behavioral and Psychological Responses; Stress: Physiological Responses.

IDENTITY CRISES

Type of psychology: Developmental psychology
Fields of study: Adolescence; adulthood

Identity crises are the internal and external conflicts faced by the adolescent/young adult when choosing an occupation and coming to terms with a basic ideology. Development of a personal identity is a central component of psychosocial maturity.

Principal terms

IDENTITY: a configuration of occupational, sexual, and ideological commitments; according to Erikson, the positive pole of the fifth stage of psychosocial development

IDENTITY CONFUSION/DIFFUSION: an incomplete or inadequate sense of self, which can range from a state of occasional uncertainty to a psychotic state

IDENTITY STATUS: a description of one's self-structure based on evidence of exploration of alternatives and commitments to a career and a basic set of values

NEGATIVE IDENTITY: a self-structure that reflects a deviant lifestyle such as that taken on by a delinquent

PSYCHOSOCIAL MATURITY: the completion of development in those areas that include both psychological and social aspects, such as identity and sexuality

PSYCHOSOCIAL MORATORIUM: a period during which the adolescent is free from responsibilities and obligations in order to explore the meaning of life

Overview

Identity crises are an integral phase in human development. According to Erik Erikson, successful resolution of the identity crisis is contingent on the earlier resolution of the crises associated with infancy and childhood, such as trust, autonomy, initiative, and industry. Further, the extent to which the conflict surrounding identity is resolved will influence how the individual will cope with the crises of adulthood.

According to Erikson's model of the human life cycle, an identity crisis is one of the psychosocial conflicts faced by the adolescent. In Erikson's model, which was published in the 1960's, each age period is defined by a certain type of psychosocial crisis. Adolescence is the life stage during which acquiring an identity presents a major conflict. Failure to resolve the conflict results in identity confusion/diffusion—that is, an inadequate sense of self.

Identity implies an existential position, according to James Marcia, who construes identity as a self-structure composed of one's personal history, belief system, and competencies. One's perception of uniqueness is directly related to the development of this self-structure. A somewhat similar position has been taken by Jane Kroger, who views the identity crisis as a problem of self-definition. The resulting identity is a balance between self and others. Erikson defines identity as the belief

that one's past experiences and identity will be confirmed in the future—as exemplified in the choice of a career. Identity is a composite of one's sexuality, physical makeup, vocation, and belief system. Identity is the pulling together of who one is and who one can become, which involves compositing one's past, present, and future. It is a synthesis of earlier identifications. Successfully resolving the identity crisis is contingent on the interactions that the adolescent/young adult has with others. Erikson contends that interacting with others provides the needed feedback about who one is and who one ought to be. These interactions with others enable the adolescent/young adult to gain a perspective of self that includes an evaluation of his or her physical and social self. Identity acquisition is cognitive as well as social.

From Erikson's perspective, as discussed by James Cote and Charles Levine (1987), four conditions are necessary for an identity crisis: Puberty has been reached; the requisite cognitive development is present; physical growth is nearing adult stature; and societal influences are guiding the person toward an integration and resynthesis of identity. The dialectics of society and personality, implicit in the last condition, are given the most attention by Erikson, according to Cote and Levine, because the other three conditions are part of normative development. Developmental level of the individual and societal pressures combine to elicit an identity crisis; but Cote and Levine note that timing of this crisis is contingent on factors such as ethnicity, gender, socioeconomic status, and subculture, as well as personality factors (for example, authoritarianism or neuroticism) and socialization practices. The severity of the identity crisis is determined by the extent to which one's identity portrayal is interfered with by the uncertainty inherent in moving toward self-definition and unexpected events.

An integral part of the identity crisis is the psychological moratorium, a time during which society permits the individual to work on crisis resolution. During this moratorium, the adolescent/young adult has the opportunity to examine societal roles, career possibilities, and values, free from the expectation of commitments and long-term responsibilities. Although some individuals choose to remain in a moratorium indefinitely, Erikson contends that there is an absolute end to the recognizable moratorium. At its completion, the adolescent/young adult should have attained the necessary restructuring of self and identifications so that he or she can find a place in society which fits this identity.

Based on Erikson's writings, Cote and Levine identify two types of institutionalized moratoria: the technological moratorium, which is highly structured, and the humanistic moratorium, which is less highly structured. The technological moratorium is the product of the educational system, which is charged by society with socializing youth to fit in adult society. Individuals in this moratorium option experience less difficulty in resolving the identity crisis because they move into occupations and societal roles for which they have been prepared with significantly less intrapsychic trauma in accepting an ideology. The school takes an active role in easing this transition by providing vocational and academic counseling for students, facilitating scheduling so that students can gain work experience while enrolled in school, and encouraging early decision making as to a future career.

The identity crisis for individuals in the humanistic moratorium is more stressful, painful, and of longer duration than for those in the technological moratorium. The focal concern of the adolescent/young adult in the humanistic moratorium is humanistic values, which are largely missing from the technological moratorium. There is more variability in this concern for humanistic values, which is reflected in the moratorium that is chosen and the commitments that are made. These conditions elicit an alternation between progressive and regressive states, with the individual making commitments at one time and disengaging at another. The character Holden Caulfield in J. D. Salinger's classic novel *The Catcher in the Rye* (1951) is an example of this type of identity problem. More extreme identity confusion is found among individuals in this moratorium. According to Cote and Levine, social support is often lacking, which hinders formation of a stable identity. Family and community support is especially important for these individuals. Yet these are the adolescents/young adults who, because their lifestyle departs from the societal mold, are often ostracized and denied support. Individuals may promote a cause of some type. Those who choose a humanistic moratorium are more likely to be intellectual, artistic, antiestablishment, and ideologically nonconforming. After a time, some of these individuals accept technological values and roles.

Individuals whose identity seeking is not influenced by technological or humanistic moratoria face a rather different situation. Some remain in a constant state of flux in which choices are avoided and commitments are lacking. Others take on a negative identity by accepting a deviant lifestyle and value system (for example, delinquency or gang membership). In this instance, the negative elements of an identity outweigh the positive elements. This type of identity crisis resolution occurs in an environment which precludes normative identity development (for example, excessively demanding parents, absence of an adequate role model).

Applications

Erikson's writings on identity crises have been responsible for an extensive literature, consisting of conceptual as well as empirical articles. Perhaps the most widely used application is Marcia's identity status paradigm, in which he has conceptualized and operationalized Erikson's theory of identity development in terms of several statuses which result from exploration and commitment. More than one hundred empirical studies have been generated from this paradigm, according to a review by Cote and Levine (1988). The identity status paradigm provides a methodological procedure for determining identity statuses based on resolution of an identity crisis and the presence of commitments to an occupation and an ideology.

According to the Marcia paradigm, an ego identity can be one of several statuses consisting of achievement, foreclosure, moratorium, or diffusion. An achievement status indicates resolution of the identity crisis and firm commitments to an occupation and an ideology. In a foreclosure status, one has formed commitments but has not experienced a crisis. The moratorium status denotes that an identity crisis is currently being experienced, and no commitments have been made. The diffusion status implies the absence of a crisis and no commitments. Much of the

research has focused on identifying the personality characteristics associated with each of these statuses. Other studies have examined the interactional patterns as well as information-processing and problem-solving strategies. Achievement and moratorium statuses seek out, process, and evaluate information in their decision making. Foreclosures have more rigid belief systems and conform to normative standards held by significant others, while those in the diffusion status delay decision making. Significant differences have been found among the statuses in terms of their capacity for intimacy, with diffusions scoring lowest, followed by foreclosures. Achievement and moratorium statuses have a greater capacity for intimacy.

Two areas of research that continue to attract attention are parental socialization patterns associated with crisis resolution, and identity crises in females. The findings to date reveal distinctive parental patterns associated with each status. Positive but somewhat ambivalent relationships between parents and the adolescent/young adult are reported for achievement status. Moratorium-status adolescents/young adults also seem to have ambivalent relationships with their parents, but they are less conforming. Males in this status tend to experience difficulty in separating from their mothers. Foreclosures view their parents as highly accepting and encouraging. Parental pressure for conformity to family values is very evident. Diffusion-status adolescents report much parental rejection and detachment from parents, especially from the father. In general, the data from family studies show that the same-sex parent is an important figure in identity resolution.

The interest in female identity has arisen because different criteria have been used to identify identity status based on the Marcia paradigm. Attitudes toward premarital sexual relations is a major content area in status determination. The research in general shows that achievement and foreclosure statuses are very similar in females, as are the moratorium and diffusion statuses. This pattern is not found for males. It has been argued by some that the focal concerns of females, in addition to concerns with occupation and ideology, involve interpersonal relationships more than do the concerns of males. Therefore, in forming a self-structure, females may examine the world outside for self-evaluation and acceptance in addition to the internal examination of self which typically occurs in males. The effect of an external focus on identity resolution in females is unknown, but this type of focus is likely to prolong the identity crisis. Further, it is still necessary to determine the areas in which choices and commitments are made for females.

The concept of negative identity has been used frequently in clinical settings to explain antisocial acts and delinquency in youth, as well as gang-related behavior. Randall Jones and Barbara Hartman (1988) found that the use of substances (for example, cigarettes, alcohol, and other drugs) was higher and more likely in youths of identity-diffusion status. Erikson and others have argued that troubled youths find that elements of a negative identity provide them with a sense of some mastery over a situation for which a positive approach has been continually denied them. In the examples cited, deviant behavior provided this sense of mastery and an identity.

Perspective and Prospects

The identity crisis is the major conflict faced by the adolescent. Erikson's theorizing about the identity crisis made a major contribution to the adolescent literature. Marcia's reconceptualization of ego identity facilitated identity research and clinical assessment by providing a methodological approach for determining identity development and the psychological concomitants of identity. As a result, the study of identity and the awareness of the psychological impact on the individual has become a major research area and has provided a basis for clinical intervention.

The concept of identity crises originated with Erikson, based on the clinical experiences which he used to develop a theory of ego identity development. Explication of this theory appeared in his writings during the 1950's and 1960's. Erikson's theory of the human life cycle places identity resolution as the major crisis faced by the adolescent. The success of this resolution is determined by the satisfactory resolution of crises in the stages preceding adolescence.

Identity formation is a major topic in most textbooks on adolescence, and it is a focal concern of practitioners who treat adolescents with psychological adjustment problems. Until the appearance of Erikson's writings, the field of adolescence was mostly a discussion of physical and sexual development. His focus on psychosocial development, especially the emergence of a self-structure, increased immeasurably the understanding of adolescent development and the problems faced by the adolescent growing up in Western society. As Cote and Levine have noted, identity is a multidimensional construct, consisting of sociological perspectives, specifically the social environment in which the individual interacts, as well as psychological processes. Thus, a supportive social environment is critical to crisis resolution. The absence of this supportive environment has frequently been cited as an explanation for identity problems and the acquisition of a negative identity.

It is important to realize that identity has a temporal element as well as a lifelong duration. That is, identity as a personality characteristic undergoes transformations throughout the life cycle. While crisis resolution may be achieved during adolescence/young adulthood, this self-structure is not permanent. Crises can reemerge during the life span. The midlife crises of middle adulthood, written about frequently in the popular press, are often viewed as a manifestation of the earlier identity crisis experienced during adolescence/young adulthood.

A future role for identity crises is difficult to forecast. The psychological moratorium will continue to be an important process. Given the constant change in American society, the moratorium options available for youth may be more restricted, or more ambiguous and less stable. This scenario is more probable for humanistic moratoria as society moves toward more institutional structure in the form of schools taking on increased responsibility for the socialization of children and youth. The provision of child care before and after school is one example of the school's increased role. The erosion which has occurred in family structure presents another problem for identity crisis resolution.

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See also:

Child and Adolescent Psychiatry; Divorce and Separation: Children's Issues; Juvenile Delinquency; Midlife Crises; Psychotherapy: Children; Teenage Suicide.

Insomnia

Type of psychology: Consciousness
Fields of study: Sleep

Insomnia is a complaint of poor, insufficient, or nonrestorative sleep; it may be experienced for a few nights or for a lifetime. Daytime functioning is often affected. Insomnia may be caused by an underlying physiological or psychological disorder, or by substance abuse, but it can also occur independently of these factors.

Principal terms

CHRONOTHERAPY: the systematic adjustment of an individual's sleep-wake cycle to align it with the person's circadian rhythm

CIRCADIAN RHYTHM: a rhythm, such as the human sleep-wake cycle, that follows a roughly twenty-four-hour pattern

PERSISTENT PSYCHOPHYSIOLOGICAL INSOMNIA (PPI): behavioral insomnia that may be caused by sleep-incompatible behaviors (such as stimulant intake) or by chronic anxiety or stress

POLYSOMNOGRAPHY: a technique employed in a sleep laboratory to monitor the electrical activity, respiration, heart rate, and movements of the body during sleep

TRANSIENT INSOMNIA: a period of insomnia lasting no more than three weeks

Causes and Symptoms

Insomnia is defined as a person's perception that his or her sleep is inadequate or abnormal. It may include difficulty initiating sleep, short sleep time, frequent awakenings from sleep, and sleep that is nonrestorative. The daytime symptoms of insomnia include fatigue, excessive daytime sleepiness, mood changes, and impaired mental as well as physical functioning. Insomnia can be caused by conditions such as stress, anxiety, depression, substance abuse, medical illness, or other sleep disorders, but it may stand alone in some patients, separate from any known underlying disorders. The occurrence of insomnia increases with age; one study estimates that approximately 50 percent of persons between the ages of sixty-five and seventy-nine experience trouble sleeping.

The Association of Sleep Disorders Centers (ASDC) recognizes that there are two general types of insomnia. Classified on the basis of the duration of the period in which the person experiences insomnia, these two types are transient insomnia and primary insomnia. Transient insomnia is seen when persons have had a history of normal sleep but experience a period of insomnia which lasts less than three weeks; the patient returns to normal sleep after the insomnia period. The insomnia period is usually tied to a specific experience or situation, and it is believed that there are two common processes that are involved in transient insomnia. The first involves central nervous system arousal and any condition which may cause such arousal, whether it is psychological or environmental. There is no clear physiologi-

cal disorder associated with this condition, but some research suggests that individuals who are likely to be aroused by stress may be more vulnerable to this type of insomnia than other people. Some sleep researchers indicate that emotional disturbance may play a role in up to 80 percent of transient insomnia cases.

A second process involved in transient insomnia results from persons having a sleep-wake schedule that is not aligned with their own circadian (twenty-four-hour) rhythms. Biological rhythms control many bodily functions, such as blood pressure, body temperature, hormonal activity, and the menstrual cycle, as well as the sleep-wake cycle. Insomnia can be caused by a sleep-wake cycle which is misaligned with the circadian rhythm, such as that which occurs when persons travel across many time zones or engage in shift work. Circadian rhythm disorders can last for periods of more than six months, in which case the problem would be considered chronic.

Primary insomnia is diagnosed when the patient's insomnia is not secondary to problems such as depression, anxiety, pain, or some other sleep disorder, and it lasts for a period longer than three weeks. Two types of primary insomnia are persistent psychophysiological insomnia (PPI) and insomnia complaints without objective findings. PPI is commonly known as learned, or behavioral, insomnia, as it is caused or maintained by maladaptive learning—that is, by the occurrence of sleep-incompatible behaviors, such as caffeine intake before bedtime. PPI is diagnosed when the patient demonstrates sleep difficulties which are verified in a sleep laboratory and are then traced to their behavioral causes. Figures vary, but approximately 15 percent of those patients diagnosed as having insomnia probably have PPI. One common feature of PPI is excessive worrying about sleep problems. Great efforts are made to fall asleep at night, which are unsuccessful and lead to increased sleep difficulty; however, the patient may fall asleep quite easily when not trying to fall asleep.

One theory concerning how persistent psychophysiological insomnia can develop suggests that some people have a poor sleep-wake system, which makes it more difficult for them to overcome sleep-inhibiting behavior. For example, it is possible for persons to become so anxious concerning their poor sleep that even the thought of their own bedroom causes them stress, which further increases their sleep problems and creates a cycle of increasingly difficult sleep. This cycle would eventually end for persons with normal sleep cycles, but it is much easier for these events to disrupt those who already have the poor sleep-wake cycle suggested by this theory. Although PPI may begin in response to stress or an emotional situation, it should again be noted that in PPI this type of learning or behavior plays the major role in the insomnia complaint.

Most insomnia patients will exhibit irregular sleep patterns or polysomnographic findings when tested in a sleep laboratory; however, there are those who complain of insomnia yet show no irregular sleep patterns. In the past, these people were viewed as having "pseudoinsomnia," and they were even thought of as possibly using poor sleep as an excuse for being lazy. Those who have insomnia complaints without objective findings do not show any physiological or psychological disorder and do not exhibit any sleep-incompatible behaviors, yet they

commonly respond to treatment of their insomnia as would a verified insomnia patient.

One study found that insomnia was associated with anxiety, depression, psychiatric distress, and medical illness in 47 percent of the cases. The medical and psychiatric disorders, as well as the pharmacological substances, that can cause insomnia are too numerous to list here. James Walsh and Roger Sugerman note three theories which attempt to explain the occurrence of insomnia in psychiatric disorders that may prove helpful in understanding the process. The first suggests that insomnia results from a psychological disturbance that goes unresolved and leads to arousal that prevents sleep. The second states that neurochemical abnormalities may be the cause of insomnia in psychiatric disorders. The final theory asserts that affective (emotional) disorders may disturb the biological rhythms that control sleep.

The trouble that many people face when trying to get a good night's rest is not the only problem caused by insomnia. Insomnia may have drastic effects on behavior during the day. As stated previously, fatigue, excessive daytime sleepiness, mood changes, and impaired mental and physical functioning are all frequently caused by insomnia. Difficulties in the workplace, as well as increased health problems, are also associated with complaints of insomnia, though they are not necessarily caused by insomnia. Insomnia is not a problem that the individual faces only at night.

Diagnosis of insomnia depends on an accurate evaluation of the circumstances surrounding the complaint. The clinician must take many things into account when diagnosing each particular case, as insomnia may be the result of any number of factors in the patient's life. Questions concerning behavior should be asked to determine if the insomnia is caused by sleep-incompatible behaviors. Polysomnographic testing in a sleep laboratory may be necessary in order to determine which type of insomnia the patient has.

Treatment and Therapy

Once properly diagnosed, insomnia may be treated in a number of ways, all of which are dependent on the type of insomnia with which the clinician is faced. While the classical treatment for sleeping problems in the past has been "sleeping pills," and treatment of transient insomnia today may still involve small doses of a short-acting drug (such as benzodiazepines) when necessary, merely counseling or educating patients concerning situations that may increase their sleep problems is frequently found to be effective. If the transient insomnia is caused by disrupting sounds in the sleeping environment (such as snoring or traffic noise), devices that mask the noise may be used; earplugs and placing a fan in the room to mask the noise are two simple examples of this method. If the sleep disturbance is associated with misaligned circadian rhythms, the person's bedtime may be systematically adjusted toward either an earlier or later hour, depending on what time they presently go to sleep. Strict adherence to the adjusted sleep-wake schedule is then necessary in order for the individual to remain on a regular schedule. This method is referred to as chronotherapy.

Peter Hauri suggests that treatment of persistent psychophysiological insomnia will typically involve aspects of three "domains": sleep hygiene, behavioral treatment, and the use of hypnotics. Methods involving sleep hygiene focus on educating the patient concerning proper sleep habits. Hauri states that the goal is for the patient to avoid all thoughts that may stimulate or arouse the patient. This is done by focusing on or engaging in monotonous or nonstimulating behaviors at bedtime such as reading or listening to pleasant music.

Behavioral methods include relaxation therapy, limiting sleep time to a few hours per night until the patient is able to use the time in bed as "true" sleeping time, and using "stimulus control" therapy. This method requires the patient to get out of bed whenever she or he is not able to sleep. The process is aimed at reducing the association between the bedroom and the frustration with trying to go to sleep. Finally, the use of hypnotic medications is indicated in patients who have such a need for sleep that they "try too hard" and thus become aroused by their efforts. As with transient insomnia, a small dose of a short-acting drug is suggested in order to break this cycle of frustration. The treatment for patients who exhibit no objective polysomnographic findings is similar to that for patients with any other type of insomnia. Such patients also tend to respond to behavioral, educational, and pharmacological methods.

Perspective and Prospects

The importance of a greater understanding of the mechanisms of sleep and insomnia can be appreciated by everyone. Anyone knows that when one feels truly sleepy, it is difficult to concentrate, perform simple tasks, or maintain patience with other people. If this situation were to last for a week, a month, or several years, one would at least wish for it to end and at most find it nearly intolerable.

A National Institute of Mental Health survey reported that approximately 17 percent of a nationally representative sample had experienced "serious" trouble sleeping in the year prior to the survey. Other research suggests that as many as 38 percent of adults in the United States experience trouble sleeping. It is likely that at some time in their lives, nearly everyone has experienced some difficulty sleeping.

The discovery of the methods used to monitor electrical activity in the human brain during the late 1920's essentially ushered in the modern era of sleep research. With this development, sleep stages were discovered, which eventually led to a greater understanding of what takes place in both normal and abnormal sleep.

A. Michael Anch, Carl Browman, Merrill Mitler, and James Walsh write in *Sleep: A Scientific Perspective* (1988) that most insomnia research prior to 1980 treated insomniacs as one group, with little attention paid to differences such as duration or causal factors in the subject's insomnia. While this limits the ability to generalize the earlier findings, these authors concede that the inclusion of different types of insomnia in studies eventually came to increase knowledge of the psychology of sleep and insomnia.

With regard to the treatment of insomnia, much has been learned that allows doctors and psychologists to treat the different types of this disorder more effec-

tively. The myth of the "cure-all" sleeping pill has been replaced with a more sophisticated approach, which includes educational and behavioral practices. Medications are still used, but treatment options have increased so that clinicians are not as limited as they once were.

As the study of sleep disorders has developed in terms of scientific sophistication, researchers have been able to learn the importance that sleep holds in day-to-day functioning. They have also discovered how detrimental sleep loss or disruption of the sleep-wake cycle can be. Aiding in the discoveries have been scientific developments in neurobiology, behavioral medicine, physiology, and psychiatry that allow analysis of the mechanisms in normal and abnormal sleep. It is hoped that as scientists gain a further understanding of insomnia through research, they will also understand, more generally, the true purpose of sleep.

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Alan K. Gibson

See also:

Anxiety Disorders; Biofeedback and Relaxation; Depression; Post-traumatic Stress; Sleep Apnea Syndromes and Narcolepsy; Stress: Behavioral and Psychological Responses; Stress: Physiological Responses.

JEALOUSY

Type of psychology: Social psychology
Fields of study: Interpersonal relations

Jealousy is the experience of perceiving that one's relationship is threatened; it is influenced by cultural expectations about relationships, personal self-esteem, and feelings of possessiveness. Jealousy is a common source of conflict, and it can have a destructive impact on relationships.

Principal terms

DISPOSITIONAL: relating to disposition or personality
DYADIC: pertaining to a couple
PATRILINEAGE: the tracing of ancestry through fatherhood
POSSESSIVENESS: the desire to maintain and control a resource, object, or person
SOCIALIZATION: the process of learning and internalizing social rules and standards

Causes and Symptoms

Jealousy is not a single emotion; it is most likely a complex of several emotions. Their central theme is the fear of losing to someone else what rightfully belongs to one. In personal relationships, jealousy focuses on fear of losing the partner; the partner is seen as a possession whose ownership is in jeopardy. Whether the threat is real or imaginary, it endangers the jealous person's self-esteem as well as the relationship. Theorists argue that three elements are central to the emotional experience of jealousy: an attachment between two people; valued resources that are exchanged between them; and an intrusion on this attachment by a third person seen to be supplanting the giver or receiver of resources.

Early theories of jealousy suggested that the jealous person fears losing possession; later conceptualizations, however, have specified that jealousy is a fear not of loss of possession but of loss of control. The intrusion of a third party also threatens the cohesiveness of the attachment, dividing partners into opponents. Insofar as the relationship has been integrated into each partner's identity, the intruder threatens not only what the jealous person has but also who he or she is. Most researchers conclude that the experience of jealousy is itself a damaging and destructive relationship event. Emotional bonds are reduced to property rights; jealousy involves the manipulation of feelings and behaviors, and it can erupt in anger or cause depression. The positive aspects of jealousy are few, but they are identifiable: It intensifies feelings, provides information about the partners, can trigger important discussions between them, and can enhance the jealous person's self-concept.

Jealousy is more likely when a relationship is intensely valued by someone; the more important it is, the more dangerous would be its loss. Social norms do not support the expression of some forms of jealousy; for example, most cultures do not tolerate expressing jealousy of one's own children. Inexpressible jealousies may be displaced onto the more tolerated forms, such as a couple's sexual

relationship. Sexual attraction or behavior is often the focus of jealousy, even though sexual interaction may not be the most valued aspect of a relationship. For example, one gender difference that has been identified in the experience of jealousy (in heterosexual relationships) is that while men focus on sexual infidelity or intrusion, women express greater jealousy about the emotional attachment between a partner and a rival.

Dispositional factors in jealousy include feelings of personal insecurity, a poor self-image, and deficient education. Jealous people appear to be unhappy even before they identify a target for their dissatisfaction. Describing oneself as "a jealous person" is related to a negative attributional style; a self-described jealous person sees his or her jealous reaction as stable and uncontrollable, and thus as less likely to change. Developmental research suggests that jealous emotions originate in childhood when the child's exclusive attachment to the mother outlives the mother's intense bond to the child. Childhood jealousy also manifests itself in rivalry with one's other parent or with siblings, implying that jealousy assumes that love is a finite resource that cannot be shared without diminishment. A common theme in jealousy research is the jealous person's sense of dependence on the threatened relationship, as well as the conviction that he or she is somehow lacking. Before an intrusion appears or is imagined, therefore, a jealous person may already feel inadequate, insecure, and threatened.

Jealousy is also related to possessiveness—the desire to maintain and control a person or resource. Thus the central issue of relationship jealousy is not love but power and control. Relatively powerful people (in most societies, men rather than women) feel less possessive because they feel less powerless. Circumstances can trigger possessiveness: In all types of relationships studied, one partner feels more possessive when he or she fears that the other might have a meaningful interaction with a third person.

Cultural and subcultural norms determine the forms and incidences of jealousy. For both men and women, jealousy is related to the expectation of exclusiveness in a relationship. For men in particular, jealousy is related to gender-role traditionalism (adherence to traditional standards of masculinity) and dependence on partners' evaluations for self-esteem. For women, jealousy is related to dependence on the relationship. With these gender-role expectations, individuals decide whether they are "obligated" to feel jealous when the circumstances indicate a threat to self-esteem or intimacy.

Cultures vary widely in the standards and degree of jealousy attached to sexual relationships. Jealousy is rare in cultures that place few restrictions on sexual gratification and do not make marriage or progeny important to social recognition. In contrast, high-jealousy cultures are those that place great importance on control of sexual behavior and identification of patrilineage. Cultural researchers conclude that jealousy is not inborn but learned through socialization to what is valued in one's culture. For example, a cultural norm commonly associated with jealousy is monogamy. In monogamous cultures, alternative liaisons are condemned as wrong, and jealousy is seen as a reasonable, vigilant response. In such contexts a double standard is promoted, separating jealousy from envy, a covetous feeling

about material property. While envy and greed are considered unacceptable, jealousy is justified as a righteous defense of intimate territory.

Despite the negative form and consequences of jealousy in most relationships, it is popularly associated with intensity of romantic commitment. Researchers have found that individuals who score high in measures of romanticism believe that jealousy is a desirable reaction in a partner. Perhaps because jealousy is mistakenly believed to strengthen intimacy (although research indicates that it has the opposite effect), some individuals may seek to induce jealousy in their partners. Researchers have found that women are more likely than men to induce jealousy with an expectation of renewed attention or greater control of the relationship. Five jealousy-inducement techniques have been identified: exaggerating a third person's appeal, flirting with others, dating others, fabricating another attachment, and talking about a previous partner. Theorists speculate that the gender difference in jealousy inducement reflects the imbalance of power in male-female relationships. Provoking jealousy may be an attempt to redress other inequities in the relationship.

Reactions to jealousy vary by age, gender, and culture. Young children may express rage in tantrums or attack the interloping sibling. Research has identified six common responses made by jealous children: aggression, identification with the rival (for example, crying or acting cute like a new baby), withdrawal, repression or feigning apathy, masochism (exaggerating pain to win attention), and creative competition (with the possible outcome of greater self-reliance).

Gender differences in jealous reactions include self-awareness, emotional expression, focus of attention, focus of blame, and restorative behavior. When jealous, men are more likely to deny such feelings, while women more readily acknowledge them. Men express jealousy in rage and anger, while women experience depression and fear (that the relationship may end). Men are more likely to blame the third party or the partner, while women blame themselves. Men engage in confrontational behavior and focus on restoring self-esteem. Women intensify possessiveness and focus on strengthening the relationship. In general, these gender differences reflect different sources of jealousy and different emotional and social implications. For most men, a relationship is regarded as a personal possession or resource to be protected with territorial aggression. For most women, a relationship is an extension of the self, a valued opportunity but not a personal right, whose loss is feared and defended with efforts to secure the bonds of attachment. The focus of postjealousy behavior is guided by the resource that is most damaged or threatened by the episode: For men, this is the role of the relationship in supporting self-esteem; for women, it is the health and security of the relationship.

Cultural differences in reacting to jealousy range from extreme violence to dismissive inattention. A jealous Samoan woman might bite her rival on the nose, while a New Mexican Zuñi wife might refuse to do her straying husband's laundry. Cultures may overtly or tacitly condone violence incited by jealous passion. Jealousy has been cited as a justifying factor in many forms of social violence: family murder and suicide, spouse abuse, divorce, depression, and criminal behav-

ior. Despite cultural stereotypes of woman as more prone to jealousy, a review of murders committed in a jealous rage has revealed women to be the perpetrators in fewer than 15 percent of the cases.

Treatment and Therapy

Researchers have identified positive, constructive approaches to managing jealous experiences. Three broad coping strategies have been identified: self-reliance, self-image improvement, and selective devaluing of the loved one. In the first case, self-reliance involves controlling expressions of sadness and anger, and forging a tighter commitment with one's partner. In the second, one's self-image can be enhanced by making positive social comparisons and identifying and developing one's good qualities. Finally, jealousy can be reduced and the threat eliminated if one convinces oneself that the loved person is not so important after all. These approaches are all popular, but they are not equally effective. Researchers comment that self-reliance works best, selective devaluing is less effective, and self-bolstering does not appear to be effective at all.

Perspective and Prospects

Research on jealousy has several origins. Anthropologists have long observed the dramatic cultural variations in the causes and expressions of jealousy. Psychologists have noted that jealousy has no consistent emotional expression or definition: For some people, jealousy is a version of anger; for others, it resembles sadness, depression, or fear. When research on close relationships began to develop in the 1960's and 1970's, jealousy was found to help explain the dynamics of power and conflict in intimacy. Early research produced the counterintuitive findings that jealousy hinders rather than enhances romantic relationships, and that its roots are not in intimacy but possessiveness. Jealousy was eventually found to be an aspect of self-esteem and defensiveness rather than a quality of intimacy or dyadic communication.

Jealousy has also gained attention as a social problem because of its implications in criminal behavior and domestic violence. Increases in the rate of domestic assault and murder have warranted a closer examination of the cultural assumptions and stereotypes that support jealous rage and depression. Educational programs to address self-esteem, especially in young children and adolescents, are focusing on jealousy as a symptom of pathology rather than a normal or healthy emotional experience.

Consistent discoveries of cultural differences in patterns of jealous experience have supported the view that jealousy, like many other "natural" relationship phenomena, is learned and acquired through socialization and experience. Thus, jealousy research is contributing to the "demystification" of close relationships—attraction and attachment are not seen as mysterious or fragile processes, but as learned behavior patterns that can be both understood and modified. Jealous individuals can be taught to derive their sense of self-esteem or security from more stable, self-controlled sources. Jealousy can be explained as the unhealthy symptom of a treatable complex of emotions, beliefs, and habits. Its contributions to

relationship conflict and personal distress can be reduced, and its lessons applied to developing healthier attitudes and behaviors.

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Ann L. Weber

See also:

Anxiety Disorders; Borderline, Histrionic, and Narcissistic Personalities; Couples Therapy; Divorce and Separation: Adult Issues; Domestic Violence; Midlife Crises; Neurosis; Obsessive-Compulsive Disorder; Paranoia; Sibling Rivalry.

JUVENILE DELINQUENCY

Type of psychology: Developmental psychology; social psychology
Fields of study: Adolescence; aggression; substance abuse

Juvenile delinquency refers to crime or status offenses by juveniles; the adult criminal typically began as a juvenile delinquent.

Principal terms

CRIME: activity defined as illegal by authorized officials, such as the legislature, and having punishment spelled out for violations

DELINQUENCY: violation of the law, or proof of violation of the law

JUVENILE: one below the legally established age of adulthood

PARENTAL NEGLECT: failure of parents to show proper concern for their child; failure to provide a child with such things as food, shelter, and psychological support

STATUS OFFENSE: violation of rules which the state holds to govern juvenile conduct, such as curfews, school attendance, or obeying parents

Causes and Symptoms

Juvenile delinquency may be defined in either of two ways. It refers either to crime or to status offenses by a person defined as not yet being an adult. The age of adulthood varies somewhat from state to state. For example, one is an adult in California at age eighteen, while one becomes an adult under Louisiana law at seventeen years of age. A crime is anything which the criminal laws of the state define as illegal. This is what most people think of when they hear the term "juvenile delinquency." There is a second category of juvenile delinquency, however, known as status offenses. These are actions for which the state holds the youth responsible, although they would not be illegal if the person were an adult. Examples include not attending school, staying out too late at night, and defiance of parents.

A juvenile can be sent to a juvenile prison for a status offense. For example, in one instance a youth was sent to a juvenile prison for status offense, fell in with more criminally oriented youth, and participated in the burglary of the home of a woman who did volunteer work with the prisoners. It was rumored that she was well-to-do, although this was apparently not really the case. The youths did not find the money, but in the process of the crime they confronted and killed the woman. Thus, a youth sent to a juvenile facility for a status offense was charged with murder for his part in the affair.

Studies of juvenile delinquents often try to explain why the youth became a criminal. In many cases, especially with youths from the lower socioeconomic classes but also sometimes with middle-class or upper-class youths, the finding is that the family unit is dysfunctional. That is, the youth does not come from a normal healthy home but from a home in which there is considerable aggression among family members, either verbal or physical. Often the parents are not very

James Dean played a young man labeled a "juvenile delinquent" in the 1955 film Rebel Without a Cause. *The motion picture reflected society's concerns about the behavior and changing attitudes of teenagers in the 1950's.* (The Museum of Modern Art, Film Stills Archive)

supportive of the children but instead show either indifference or constant criticism. Youths who murder have often been physically and psychologically abused by their parents. For example, there is a case of a young murderer who shot and killed a female boarder in his home when he was fifteen years old. The youth had received beatings from a series of stepfathers. He said that the psychological abuse he suffered was even worse than the physical abuse. He gave an example in psychotherapy of one of his stepfathers telling him, "You are no better than the dog. You can go sleep outside in the doghouse tonight." With that, the adult forced him out of the house.

Many juvenile delinquents have suffered parental physical, sexual, or psychological abuse when growing up, and turning to crime seems to be one way of responding to these abuses. Too few people see the various kinds of abuse as a possible causal factor in choosing a life of crime. There is, however, increasing research supporting this notion. This leads to the idea that early intervention into the home may be a preventive, in that stopping some of this abuse may save some juveniles from becoming criminals. Yet not everyone who suffers such abuse becomes a criminal, so there must be many causes of crime. Some people grow up to be fairly normal despite the abuse, while others suffer various degrees of mental illness instead of becoming criminals or growing up to be normal.

In the instances where there is no obvious physical, sexual, or psychological abuse leading to juvenile delinquency, one often finds that the parents themselves are antisocial. Thus, in a sense, the child grows up following rules of socialization, but in these cases the child is socialized to antisocial choices. For example, parents may violate certain laws, often in a flagrant fashion, such as using cocaine in their child's presence. The child learns that this is the normal, approved way within his or her household, and adopts the parents' values. Thus, the road is set for the child to become a juvenile delinquent. When one thinks of crime, one may think of lower-class people, and indeed prisons are primarily filled with people from the lower socioeconomic classes, including many minorities. Middle- or upper-class youths may also be delinquent, but they are more likely to avoid going to prison, either through preferential treatment or by having better attorneys.

A totally different view of crime from the one presented thus far puts the blame squarely on the shoulders of the offender. According to this view, people have free will and commit crimes because they choose to do so. They are not seen as victims of family background but as bad people who do bad things. A slightly modified version of this approach would be that there is something in the offender that predisposes him or her toward committing crimes. It could, for example, possibly be brain chemistry which makes a person oriented toward thrill-seeking behavior. Perhaps some people have such a strong need for sensation-seeking that ordinary excitements do not satisfy them, and under the right circumstances, such as a group which encourages them, they will commit crimes. Yet another view which places the responsibility primarily on the individual would be approaches suggesting that many criminals suffer from brain damage or other physical problems which interfere with good judgment.

All these explanations focus on the individual as being responsible and shy away from seeing the social setting, including the family, as having much to do with the juvenile becoming delinquent. An attempt to explain crime by saying that many criminals possess an extra Y chromosome, thus putting the cause on a genetic basis, has been shown to be inadequate. Most criminals do not possess an extra Y chromosome, and those who do seem to have low intelligence. They apparently do not become criminals because of their chromosomal abnormality.

Treatment and Therapy

Given that society thinks of some juveniles as delinquent, there are two general approaches to the problem. First, society needs some way of controlling those juveniles who disobey the law. Here one has the whole criminal justice system: police, juvenile courts, probation officers, prisons, and so on. Second, people can try to help the juvenile via treatment. Some would say that prison or probation is treatment, but what is meant here is the kind of intervention that a social worker, psychologist, or psychiatrist might make.

There are three kinds of prevention. Primary prevention occurs when something bad is prevented from happening before the person shows any signs of a problem. Drug education in the early school grades would be an example. Secondary prevention occurs when professionals work with an at-risk population. For ex-

ample, helping a youth who lives in a high-crime area where drugs are sold and laws are often violated, but who himself or herself is not delinquent, would be secondary prevention. He or she is at risk of becoming a delinquent, given the environment, but has not become delinquent yet. Tertiary prevention occurs when the problem has already occurred and then something is done. Treating a disease after a person has become sick is tertiary prevention; so is doing psychotherapy with people who already are mentally ill, or performing some kind of intervention with someone who is already a delinquent.

Unfortunately, most of society's preventive attempts are tertiary prevention, whereas primary prevention would seem to be the most effective, followed by secondary prevention. Psychologists and psychiatrists are typically called upon for tertiary prevention. Social workers are as well, but some of the time they may intervene in a primary or secondary fashion, as when they do home visits to assess the problems in a home and devise some strategy for improving the situation. Psychologists and psychiatrists can do primary and secondary prevention, and sometimes they do, especially if they work with some agency, such as a school, and try to prevent problems before they occur. It may be too late to change most juvenile delinquents once they reach about sixteen years of age. Primary or secondary preventive efforts would seem the most effective approach. By the time an offender is sixteen, he or she may have a long history of crime and may be dedicated to an antisocial lifestyle. Some sixteen-year-olds can be helped, certainly, especially if they are fairly new to crime. Many juvenile delinquents have no sense of how they could be other than a criminal. Treatment efforts need to provide them with alternatives and with the skills, via education or job training, to meet these alternatives.

Once the juvenile has been tried and convicted in a juvenile court (or in a regular adult court, if tried as an adult, as sometimes occurs in very serious cases), the court has three major dispositions it can make. The convicted juvenile may be placed on probation, ordered to make restitution if money was stolen or property damaged, or incarcerated. One would hope that fairness would prevail and that the sentences handed down from jurisdiction to jurisdiction would be similar for similar offenses. Such, unfortunately, is not always the case.

The criminal justice system is plagued with the problem of sentencing disparity. This affects juvenile and adult offenders alike. In other words, if an offender is convicted in one court, the sentence may be very different from that which is handed down in another court for the same offense, and for a juvenile with the same history. History here means that the court, legitimately, takes into account the previous arrest and conviction record of the juvenile in determining sentence. In one look at sentences given to juveniles by courts in six different sites (five different states and Washington, D.C.), all the offenders were repeat offenders convicted of serious crimes. The sentences handed down in the different sites should have been about the same. They were not. In one jurisdiction, most of the convicted juvenile offenders were incarcerated and none received probation. In the other sites, incarceration was very unlikely, and probation or restitution were frequently employed. Thus, what sentence one received depended upon where one

was convicted. This is hardly an equitable application of the law. The one jurisdiction which typically used incarceration may be overly harsh, while the other jurisdictions may be overly lenient. Sometimes probation or restitution makes sense in order to give the offender another chance, while sometimes incarceration is necessary for the protection of society. The sentences should fit the needs of society and of the offender, but at times they seem to reflect the bias of the community for either harsh or lenient treatment of convicted juveniles.

Perspective and Prospects

The idea that juveniles should be treated differently from adults is a fairly modern one. For example, in the Middle Ages people had quite a different conception of childhood. Their art often shows babies who look like small adults. Until quite recently, juveniles were often placed in prison with adults, where they were sometimes subject to rape or other abuse. Some states still place juveniles in adult prisons. Thinking of someone as a juvenile delinquent, instead of simply as a delinquent (criminal), often means that the juvenile receives what are supposed to be special considerations. For example, the juvenile may not be "convicted of a crime" but instead may have a "sustained petition" declaring him or her delinquent. The penalties may be much less than if an adult had committed the crime.

Since juveniles are treated differently, it once was held that the juvenile court was not really a court in the adult sense but a place where the judge's function was to help the youth. One consequence of this thinking was that the adult right to have an attorney was not granted universally to juveniles. Thus, those charged with juvenile delinquency would face the possibility of being convicted and sent to prison but might not have a lawyer during their trial. The United States Supreme Court changed that in 1967 in a case known as *In re Gault*, in which it ruled that juveniles are entitled to adultlike protections, including having an attorney. No longer would juveniles be tried and convicted without legal counsel.

It was previously noted that juveniles may receive lesser penalties for crimes than adults; sometimes, however, the penalties are worse. Two examples are status offenses, wherein the offense, such as disobeying parents, would not even be a crime if the juvenile were an adult, and instances where the juvenile may be confined in a juvenile prison until he or she becomes an adult. In the second case, an adult male who breaks into a warehouse may receive a three-year sentence, while a fourteen-year-old boy may be confined until he is eighteen or perhaps even until he is twenty-one. In this case, the person would have received a shorter sentence had he been an adult. The use of status offenses as a basis for charging or imprisoning juveniles has received much criticism from social scientists as unfair. Those who favor retaining it see it as an effective social control mechanism for what they consider criminal tendencies.

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Russell Eisenman

See also:

Abnormality: Family Models; Abnormality: Legal Models; Addictive Personality and Behaviors; Aggression: Definitions and Theoretical Explanations; Aggression: Reduction and Control; Antisocial Personality; Child Abuse; Child and Adolescent Psychiatry; Identity Crises; Psychotherapy: Children.

Learning Disabilities

Type of psychology: Language; memory
Fields of study: Childhood and adolescent disorders; cognitive processes; social perception and cognition

This variety of disorders involves the failure to learn an academic skill despite normal levels of intelligence, maturation, and cultural and educational opportunity. Estimates of the prevalence of learning disabilities in the general population range between 2 and 20 percent.

Principal terms

ACHIEVEMENT TEST: a measure of an individual's degree of learning in an academic subject, such as reading, mathematics, and written language

DYSLEXIA: difficulty in reading, with an implied neurological cause

INTELLIGENCE TEST: a psychological test designed to measure an individual's ability to think logically, act purposefully, and react successfully to the environment; yields intelligence quotient (IQ) scores

NEUROLOGICAL DYSFUNCTION: problems associated with the way in which different sections and structures of the brain perform tasks, such as verbal and spatial reasoning and language production

NEUROLOGY: the study of the central nervous system, which is composed of the brain and spinal cord

PERCEPTUAL DEFICITS: problems in processing information from the environment, which may involve distractibility, impulsivity, and figure-ground distortions (difficulty distinguishing foreground from background)

STANDARDIZED TEST: an instrument used to assess skill development in comparison to others of the same age or grade

Causes and Symptoms

An understanding of learning disabilities must begin with the knowledge that the definition, diagnosis, and treatment of these disorders have historically generated considerable disagreement and controversy. This is primarily attributable to the fact that people with learning disabilities are a highly diverse group of individuals with a wide variety of characteristics. Consequently, differences of opinion among professionals remain to such an extent that presenting a single universally accepted definition of learning disabilities is not possible. Definitional differences most frequently center on the relative emphases that alternative groups place on characteristics of these disorders. For example, experts in medical fields typically describe these disorders from a disease model and view them primarily as neurological dysfunctions. Conversely, educators usually place more emphasis on the academic problems that result from learning disabilities. Despite these differences, the most commonly accepted definitions, those developed by the United States Office of Education in 1977, the Board of the Association for Children and Adults

POSSIBLE SIGNS OF LEARNING DISABILITIES IN CHILDREN

- difficulty understanding and following instructions
- trouble remembering what someone just told him or her
- failing to master reading, writing, and/or math skills, and thus failing schoolwork
- difficulty distinguishing right from left, for example, confusing 25 with 52, "b" with "d," or "on" with "no."
- lacking coordination in walking, sports, or small activities such as holding a pencil or tying a shoelace
- easily losing or misplacing homework, schoolbooks, or other items
- not understanding the concept of time; confused by "yesterday," "today," and "tomorrow."

with Learning Disabilities in 1985, and the National Joint Committee for Learning Disabilities in 1981, do include some areas of commonality.

Difficulty in academic functioning is included in the three definitions, and virtually all descriptions of learning disabilities include this characteristic. Academic deficits may be in one or more formal scholastic subjects, such as reading or mathematics. Often the deficits will involve a component skill of the academic area, such as problems with comprehension or word knowledge in reading or difficulty in calculating or applying arithmetical reasoning in mathematics. The academic difficulty may also be associated with more basic skills of learning that influence functioning across academic areas; these may involve deficits in listening, speaking, and thinking. Dyslexia, a term for reading problems, is the most common academic problem associated with learning disabilities. Because reading skills are required in most academic activities to some degree, many view dyslexia as the most serious form of learning disability.

The presumption of a neurological dysfunction as the cause of these disorders is included, either directly or indirectly, in each of the three definitions. Despite this presumption, unless an individual has a known history of brain trauma, the neurological basis for learning disabilities will not be identified in most cases because current assessment technology does not allow for such precise diagnoses. Rather, at least minimal neurological dysfunction is simply assumed to be present in anyone who exhibits characteristics of a learning disorder.

The three definitions all state that individuals with learning disabilities experience learning problems despite possessing normal intelligence. This condition is referred to as a discrepancy between achievement and ability or potential.

Finally, each of the three definitions incorporates the idea that learning disabilities cannot be attributed to another handicapping condition such as mental retardation, vision or hearing problems, emotional or psychiatric disturbance, or social, cultural, or educational disadvantage. Consequently, these conditions must be excluded as primary contributors to academic difficulties.

Reports on the prevalence of learning disabilities differ according to the definitions and identification methods employed. Consequently, statistics on prevalence range between 2 and 20 percent of the population. Many of the higher reported percentages are actually estimates of prevalence that include individuals who are

presumed to have a learning disorder but who have not been formally diagnosed. Males are believed to constitute the majority of individuals with learning disabilities, and estimated sex ratios range from 6:1 to 8:1. Some experts believe that this difference in incidence may reveal one of the causes of these disorders.

A number of causes of learning disabilities have been proposed, with none being universally accepted. Some of the most plausible causal theories include neurological deficits, genetic and hereditary influences, and exposure to toxins during fetal gestation or early childhood.

Evidence to support the assumption of a link between neurological dysfunction and learning disabilities has been supported by studies using sophisticated brain imaging techniques such as positron emission tomography (PET) and computed tomography (CT) scanning and magnetic resonance imaging (MRI). Studies using these techniques have, among other findings, indicated subtle abnormalities in the structure and electrical activity in the brains of individuals with learning disabilities. The use of such techniques has typically been confined to research; however, the continuing advancement of brain imaging technology holds promise not only in contributing greater understanding of the nature and causes of learning disabilities but also in treating the disorder.

Genetic and hereditary influences also have been proposed as causes. Supportive evidence comes from research indicating that identical twins are more likely to be concordant for learning disabilities than fraternal twins and that these disorders are more common in certain families.

A genetic cause of learning disabilities may be associated with extra X or Y chromosomes in certain individuals. The type and degree of impairment associated with these conditions vary according to many genetic and environmental factors, but they can involve problems with language development, visual perception, memory, and problem solving. Despite evidence to link chromosome abnormalities to those with learning disabilities, most experts agree that such genetic conditions account for only a portion of these individuals.

Exposure to toxins or poisons during fetal gestation and early childhood can also cause learning disabilities. During pregnancy nearly all substances the mother takes in are transferred to the fetus. Research has shown that mothers who smoke, drink alcohol, or use certain drugs or medications during pregnancy are more likely to have children with developmental problems, including learning disabilities. Yet not all children exposed to toxins during gestation will have such problems, and the consequences of exposure will vary according to the period when it occurred, the amount of toxin introduced, and the general health and nutrition of the mother and fetus.

Though not precisely involving toxins, two other conditions associated with gestation and childbirth have been linked to learning disabilities. The first, anoxia or oxygen deprivation, occurring for a critical period of time during the birthing process has been tied to both mental retardation and learning disabilities. The second, and more speculative, involves exposure of the fetus to an abnormally large amount of testosterone during gestation. Differences in brain development are proposed to result from the exposure causing learning disorders, among other

abnormalities. Known as the embryological theory, it may account for the large number of males with these disabilities, since they have greater amounts of testosterone than females.

The exposure of the immature brain during early childhood to insecticides, household cleaning fluids, alcohol, narcotics, and carbon monoxide, among other toxic substances, may also cause learning disabilities. Lead poisoning resulting from ingesting lead from paint, plaster, and other sources has been found in epidemic numbers in some sections of the country. Lead poisoning can damage the brain and cause learning disabilities, as well as a number of other serious problems.

The number and variety of proposed causes not only reflect differences in experts' training and consequent perspectives but also suggest the likelihood that these disorders can be caused by multiple conditions. This diversity of views also carries to methods for assessing and providing treatment and services to individuals with learning disabilities.

Treatment and Therapy

In 1975, the U.S. Congress adopted the Education for All Handicapped Children Act, which, along with other requirements, mandated that students with disabilities, including those with learning disabilities, be identified and provided appropriate educational services. Since that time, much effort has been devoted to developing adequate assessment practices for diagnosis and effective treatment strategies.

In the school setting, assessment of students suspected of having learning disabilities is conducted by a variety of professionals, including teachers specially trained in assessing learning disabilities, school nurses, classroom teachers, school psychologists, and school administrators. Collectively, these professionals are known as a multidisciplinary team. An additional requirement of this educational legislation is that parents must be given the opportunity to participate in the assessment process. Professionals outside the school setting, such as clinical psychologists and independent educational specialists, also conduct assessments to identify learning disabilities.

Because the definition of learning disabilities in the 1975 act includes a discrepancy between achievement and ability as a characteristic of the disorder, students suspected of having learning disabilities are usually administered a variety of formal and informal tests. Standardized tests of intelligence, such as the third edition of the Wechsler Intelligence Scale for Children, are administered to determine ability. Standardized tests of academic achievement, such as the Woodcock-Johnson Psychoeducational Battery and the Wide Range Achievement Test, also are administered to determine levels of academic skill.

Whether a discrepancy between ability and achievement exists to such a degree to warrant diagnosis of a learning disability is determined by various formulas comparing the scores derived from the intelligence and achievement tests. The precise methods and criteria used to determine a discrepancy vary according to differences among state regulations and school district practices. Consequently, a student diagnosed with a learning disability in one part of the United States may not be viewed as such in another area using different diagnostic criteria. This

possibility has been raised in criticism of the use of the discrepancy criteria to identify these disorders. Other criticisms of the method include the use of intelligence quotient (IQ) scores (which are not as stable or accurate as many assume), the inconsistency of students' scores when using alternative achievement tests, and the lack of correspondence between what students are taught and what is tested on achievement tests.

In partial consequence of these and other problems with standardized tests, alternative informal assessment methods have been developed. One such method that is frequently employed is termed curriculum-based assessment (CBA). The CBA method uses materials and tasks taken directly from students' classroom curriculum. For example, in reading, CBA might involve determining the rate of words read per minute from a student's textbook. CBA has been demonstrated to be effective in distinguishing among some students with learning disabilities, those with other academic difficulties, and those without learning problems. Nevertheless, many professionals remain skeptical of CBA as a valid alternative to traditional standardized tests.

Other assessment techniques include vision and hearing tests, measures of language development, and tests examining motor coordination and sensory perception and processing. Observations and analyses of the classroom environment may also be conducted to determine how instructional practices and a student's behavior contribute to learning difficulties.

Based on the information gathered by the multidisciplinary team, a decision is made regarding the diagnosis of a learning disability. If a student is identified with one of these disorders, the team then develops an individual education plan to address identified educational needs. An important guideline in developing the plan is that students with these disorders should be educated to the greatest extent possible with their nonhandicapped peers, while still being provided with appropriate services. Considerable debate has occurred regarding how best to adhere to this guideline.

Programs for students with learning disabilities typically are implemented in self-contained classrooms, resource rooms, or regular classrooms. Self-contained classrooms usually contain ten to twenty students and one or more teachers specially trained to work with these disorders. Typically, these classrooms focus on teaching fundamental skills in basic academic subjects such as reading, writing, and mathematics. Depending on the teacher's training, efforts may also be directed toward developing perceptual, language, or social skills. Students in these programs usually spend some portion of their day with their peers in regular education meetings, but the majority of the day is spent in the self-contained classroom.

The popularity of self-contained classrooms has decreased significantly since the 1960's, when they were the primary setting in which students with learning disabilities were educated. This decrease is largely attributable to the stigmatizing effects of placing students in special settings and the lack of clear evidence to support the effectiveness of this approach.

Students receiving services in resource rooms typically spend a portion of their day in a class where they receive instruction and assistance from specially trained

teachers. Students often spend one or two periods in the resource room with a small group of other students who may have similar learning problems or function at a comparable academic level. In the elementary grades, resource rooms usually focus on developing basic academic skills, whereas at the secondary level time is more typically spent in assisting students with their assignments from regular education classes.

Resource room programs are viewed as less restrictive than self-contained classrooms; however, they too have been criticized for segregating children with learning problems. Other criticisms center on scheduling difficulties inherent in the program and the potential for inconsistent instructional approaches and confusion over teaching responsibilities between the regular classroom and resource room teachers. Research on the effectiveness of resource room programs also has been mixed; nevertheless, they are found in most public schools across the United States.

Though they remain a minority, increasing numbers of students have their individual education plans implemented exclusively in a regular classroom. In most schools where such programs exist, teachers are given assistance by a consulting teacher with expertise in learning disabilities. Supporters of this approach point to the lack of stigma associated with segregating students and the absence of definitive research supporting other service models. Detractors are concerned about the potential for inadequate support for the classroom teacher, resulting in students receiving poor quality or insufficient services. The movement to provide services to educationally handicapped students in regular education settings, termed the Regular Education Initiative, has stirred much debate among professionals and parents. Resolution of the debate will greatly affect how individuals with learning disabilities are provided services.

No one specific method of teaching these students has been demonstrated to be superior to others. A variety of strategies have been developed, including perceptual training, multisensory teaching, modality matching, and direct instruction. Advocates of perceptual training believe that academic problems stem from underlying deficits in perceptual skills. They use various techniques aimed at developing perceptual abilities before trying to remedy or teach specific academic skills. Multisensory teaching involves presenting information to students through several senses. Instruction using this method may be conducted using tactile, auditory, visual, and kinesthetic exercises. Instruction involving modality matching begins with identifying the best learning style for a student, such as visual or auditory processing. Learning tasks are then presented via that mode. Direct instruction is based on the principles of behavioral psychology. The method involves developing precise educational goals, focusing on teaching the exact skill of concern, and providing frequent opportunities to perform the skill until it is mastered.

With the exception of direct instruction, research has generally failed to demonstrate that these strategies are uniquely effective with students with learning disabilities. Direct instruction, on the other hand, has been demonstrated effective but has also been criticized for focusing on isolated skills without dealing with the broader processing problems associated with these disorders. More promisingly,

students with learning disabilities appear to benefit from teaching approaches that have been found effective with students without learning problems when instruction is geared to ability level and rate of learning.

Perspective and Prospects

Interest in disorders of learning can be identified throughout the history of medicine. The specific study of learning disabilities, however, can be traced to the efforts of a number of physicians working in the first quarter of the twentieth century who studied the brain and its associated pathology. One such researcher, Kurt Goldstein, identified a number of unusual characteristics, collectively termed perceptual deficits, which were associated with head injury.

Goldstein's work influenced a number of researchers affiliated with the Wayne County Training School, including Alfred Strauss, Laura Lehtinen, Newell Kephart, and William Cruickshank. These individuals worked with children with learning problems who exhibited many of the characteristics of brain injury identified by Goldstein. Consequently, they presumed that neurological dysfunction, whether it could specifically be identified or not, caused the learning difficulties. They also developed a set of instructional practices involving reduced environmental stimuli and exercises to develop perceptual skills. The work and writings of these individuals through the 1940's, 1950's, and 1960's were highly influential, and many programs for students with learning disabilities were based on their theoretical and instructional principles.

Samuel Orton, working in the 1920's and 1930's, also was influenced by research into brain injury in his conceptualization of children with reading problems. He observed that many of these children were left-handed or ambidextrous, reversed letters or words when reading or writing, and had coordination problems. Consequently, he proposed that reading disabilities resulted from abnormal brain development and an associated mixing of brain functions. Based on the work of Orton and his students, including Anna Gilmore and Bessie Stillman, a variety of teaching strategies were developed which focused on teaching phonics and using multisensory aids. In the 1960's, Elizabeth Slingerland applied Orton's concepts in the classroom setting and they have been included in many programs for students with learning disabilities.

A number of other researchers have developed theories for the cause and treatment of learning disabilities. Some of the most influential include Helmer Mykelbust and Samuel Kirk, who emphasized gearing instruction to a student's strongest learning modality, and Norris Haring, Ogden Lindsley, and Joseph Jenkins, who applied principles of behavioral psychology to teaching.

The work of these and other researchers and educators raised professional and public awareness of learning disabilities and the special needs of individuals with the disorder. Consequently, the number of special education classrooms and programs increased dramatically in public schools across the United States in the 1960's and 1970's. Legislation on both the state and federal level, primarily resulting from litigation by parents to establish the educational rights of their children, also has had a profound impact on the availability of services for those

with learning disabilities. The passage of the Education for All Handicapped Children Act in 1975 not only mandated appropriate educational services for students with learning disabilities but also generated funding, interest, and research in the field. The Regular Education Initiative has since prompted increased efforts to identify more effective assessment and treatment strategies and generated debates among professionals and the consumers of these services. Decisions resulting from these continuing debates will have a significant impact on future services for individuals with learning disabilities.

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Paul F. Bell

See also:

Aphasias; Attention-Deficit Disorder; Autism; Brain Disorders; Child and Adolescent Psychiatry; Down Syndrome; Dyslexia; Mental Retardation.

LOBOTOMY

Type of psychology: Psychotherapy
Fields of study: Aggression; anxiety disorders; biological treatments

Lobotomy is a psychosurgical treatment in which portions of the brain are disconnected or removed by surgical methods in order to treat psychiatric problems such as aggression, anxiety disorders, and schizophrenia; it was used mostly between 1935 and the 1960's, until psychoactive drugs and more targeted psychosurgery began to replace it.

Principal terms

AFFECTIVE: pertaining to or resulting from emotion or feeling rather than from thought

CENTRUM OVALE: a portion of the frontal lobes of the cerebrum, rich in nerve fibers and lacking major blood vessels

CEREBRUM: The large, rounded brain structure that occupies most of the cranial cavity; it is divided into two cerebral hemispheres by a deep groove and is joined at the bottom by the corpus callosum

FRONTAL LOBE: the largest part of the anterior portion of the cerebral cortex

PSYCHOSIS: a severe mental disorder characterized by the deterioration of normal intellectual and social function and by withdrawal from reality

SCHIZOPHRENIA: a group of psychotic conditions characterized by withdrawal from reality and accompanied by highly variable affective, behavioral, and intellectual disturbances

THALAMUS: a large ovoid mass of gray matter that is connected to the cerebrum and relays sensory stimuli to the cerebral cortex

Overview

According to Elliot S. Valenstein, in *Great and Desperate Cures: The Rise and Decline of Psychosurgery and Other Radical Treatments for Mental Illness* (1986), "Between 1948 and 1952 tens of thousands of mutilating brain operations were performed on men and women around the world." By 1960, however, Valenstein states, the practice had fallen off drastically. "Not only had chlorpromazine and other psychoactive drugs provided a simple and inexpensive alternative, but it was discovered that these operations were leaving in their wake many seriously brain damaged people."

Why, then, was lobotomy pursued by reputable members of the medical profession, both on indigent patients in publicly supported institutions and on the wealthy in expensive private hospitals and at universities? The answer is quite complex; it includes the powerful proponents of the method in the medical community, the state of knowledge of the brain at the time, the extensive overcrowding of mental hospitals, and the ministrations of the popular press, which lauded the method with uncritical and uninformed enthusiasm.

Two main figures in lobotomy were António Egas Moniz, the Portuguese neurologist who initiated lobotomy operations—and later won a Nobel Prize for his work—and Walter Freeman, the well-known American neuropathologist and neuropsychiatrist who roamed the world and convinced many others to carry out these operations. No evil was intended by these well-known physicians; they were driven by compassion for the mentally ill at a time when the mentally ill lived horrible lives under degrading conditions in understaffed asylums that were likened to hell by many observers. As Valenstein pointed out, "into the fourth decade of the twentieth century. . . conditions in the institutions for the incurably insane had advanced but little. . . . Patients were beaten, choked, and spat on by attendants. They were put in dark, damp, padded cells." Very little could be done to cure them.

There were, at the time, two opposing theories of mental illness: the somatic or organic theory that mental disease was of biological origin, and the functional theory, which supposed that life experiences caused mental problems. The somatic theory was shaped mostly by Emil Kraepelin, a prominent authority during the early twentieth century. Kraepelin distinguished more than twenty types of mental disorder, including dementia praecox (schizophrenia) and manic-depressive disorder (bipolar disorder). Kraepelin and his colleagues viewed these diseases as being genetically determined, and practitioners of psychiatry developed complex physical diagnostic schemas that supposedly identified people with the various types of psychoses. In contrast, Sigmund Freud was the main proponent of the functional theory.

Attempts to help mental patients included electroconvulsive therapy; various water treatments; and surgical treatment by removal of tonsils, sex organs, and portions of the digestive system. These and many other attempted cures had widely varied success rates. By the 1930's, the most generally effective curative procedures were believed to be several types of shock treatments and lobotomy.

The first lobotomy was performed on November 12, 1935, at a hospital in Lisbon, Portugal. A neurosurgeon drilled two holes into the skull of a female mental patient and injected ethyl alcohol directly into the frontal lobes of her brain to destroy nerve cells. After several more such operations, the tissue-killing procedure was altered in that an instrument called a leucotome was used. After its insertion into the brain, the knifelike instrument was rotated, like an apple corer, to destroy chosen areas of the lobes.

The already well-known neurologist who devised the operation, António Egas Moniz, initially named it prefrontal leucotomy. Within a year, the psychosurgery (a term also coined by Egas Moniz) had spread through Europe. It was widely reported—though denied by Egas Moniz—that the idea for the procedure came when Egas Moniz noted that removal of the frontal lobes of chimpanzees (not by Egas Moniz) had made them less emotional and more docile. The main justifications for wide use of the procedure were the absence of any other effective somatic treatment and the emerging concept that the frontal lobes of the cerebrum are the site of both intellectual activity and mental problems.

Selection of the target site for the leucotomy was reportedly based on two considerations: finding the position in the frontal lobes where nerve fibers (not

nerve cells) were most concentrated, and avoiding damage to large brain blood vessels. Therefore, Egas Moniz used as his target the centrum ovale of the frontal lobes, which contains few blood vessels. With the surgical site chosen, the first subject, a sixty-three-year-old woman suffering from severe anxiety and paranoia, was operated on. The operation, overseen by Egas Moniz, was carried out by his neurosurgeon colleague, Pedro Almeida Lima. Egas Moniz and Lima continued with more of the operations, and after eight operations—half on schizophrenics—they asserted that their cure rates were good. Several other psychiatric physicians, however, disagreed strongly.

After twenty operations, it became fairly clear that the new psychosurgery was most effective on mental patients suffering from anxiety and depression; schizophrenics did not benefit very much. The main effect of the leucotomy surgery appeared to be a calming down of patients; it made them much more docile. Retrospectively, it is believed that Egas Moniz's evidence for serious improvement in many cases was very sketchy; however, many psychiatrists and neurologists of the time were impressed with the procedure, and the stage was set for its wide dissemination.

Applications

The second great proponent of Egas Moniz's leucotomy—the physician who renamed it lobotomy and then greatly modified the methodology used—was Walter Freeman, a professor of neuropathology at George Washington University Medical School. He is reported to have come upon Egas Moniz's first paper in 1936, tested the procedure on preserved brains from the medical school morgue, and set out to replicate Egas Moniz's efforts.

After six lobotomies, Freeman and his associate, James Winston Watts, became optimistic that the method was useful for treating patients exhibiting apprehension, anxiety, insomnia, and nervous tension. They were quick to point out, however, that the words "recovery" and "cure" could not be applied to mental problems "until after a period of five years."

As Freeman and Watts continued to operate, they began to notice problems: These included a relapse to the original abnormal state of mind in many patients and the need for repeated surgery in others; the inability of lobotomized patients to resume any jobs that required the use of reasoning power; and deaths from hemorrhage after the surgery. This led them to develop a more precise technique that involved the use of landmarks on the skull to identify where to drill the entry holes into it, cannulation to ensure that the lobar penetration depth obtained was not dangerous to the patient, and the use of a knifelike spatula to make the actual lobotomy cuts. The extent of surgery was also varied depending upon whether the patient involved was suffering from an affective psychological disorder or from schizophrenia. Their methodology, which became known as the "routine Freeman-Watts lobotomy procedure," became popular throughout the world.

Another method used for prefrontal lobotomy was that of J. G. Lyerly, who designed a procedure in which the brain was opened enough that the psychosurgeon involved could look into it and see exactly what was being done to the frontal

lobes being operated on. This technique also became popular and was used at many prestigious sites throughout the United States. Near the same time, in Japan, Mizuho Nakata of Niigata Medical College began to remove from the brain portions of one or both frontal lobes that were operated on.

The Freeman-Watts method became the most popular, however, because their 1942 book on the procedure constituted what a number of experts, including Elliot Valenstein, have called a "do-it-yourself manual" and "manifesto" for psychosurgery. As Valenstein also pointed out, Watts's book theorized that brain pathways between the cerebral frontal lobes and the thalamus regulate the "intensity of the emotions invested in ideas," and acceptance of this theory led to the "scientific justification of psychosurgery."

A final type of lobotomy that became fairly widespread was the transorbital method designed by Freeman (on the framework of a method originally used by the Italian physician Amarro Fiamberti), because of the shortcomings of his routine method and because he thought that the new method aided schizophrenics. This simple, very rapid—but frightening—procedure entailed driving icepicklike transorbital leukotomes through the eye sockets (orbits of the eyes) above the eyeballs and into the frontal lobes. Electroconvulsive shock treatment was used as the anesthetic method that rendered subjects unconscious, and the procedure was carried out before they woke up. Transorbital lobotomy reportedly alienated Freeman's collaborator, Watts. The charismatic Freeman gained many other converts to its use, however, and gruesome as the procedure may seem, the method produced much less brain damage than the other lobotomy procedures already described. It was widely used at state hospitals for the insane and received many laudatory comments from the popular press, including statements that many previously hopeless cases were immediately transformed by the procedure to quite normal states and that it was more useful with schizophrenics than other procedures were.

Perspective and Prospects

Lobotomy and other forms of psychosurgery might be defined as the disconnection or destruction of part of the brain to alleviate severe and otherwise untreatable psychiatric disease. Lobotomy is believed to have originated with the observation by early medical practitioners that severe head injuries could produce extreme changes in behavior. In addition, according to several sources, practitioners from the thirteenth to the sixteenth century reported that sword and knife wounds that penetrated into the skull could change both normal and abnormal behavior patterns.

In the late nineteenth and early twentieth centuries, several experimenters showed that removal of parts of the cerebral cortexes of animals profoundly altered their behavior. Then, Egas Moniz (who was also the founder of brain angiography) triggered the widespread use of lobotomy in 1935. His efforts and those of Freeman and Watts popularized the concept of lobotomy, though different styles of operation were used by these main proponents of this surgery, for which Freeman became the main spokesperson.

Largely because of the overcrowding of understaffed mental institutions and a lack of effective alternate methods for treating mental disorders, lobotomy was widely used between 1936 and 1955; Egas Moniz won the Nobel Prize in Physiology or Medicine in 1949. It is estimated by various sources that between 75,000 and 150,000 lobotomies were performed, worldwide, in this time period. The development of psychoactive drugs in the 1950's and growing concern about the damage done to lobotomized patients led to a rapid decrease in the number of patients operated on. For example, Valenstein has reported that from 1956 to 1977 the number of American lobotomies fell dramatically. Since then, the amount of such surgery has decreased still more.

There has been considerable criticism of lobotomy. Its opponents argue that tremendous damage was done to patients, that many studies were not compared to appropriate—or even any—controls, and that observations made about cures failed to take into account the fact that mental aberrations tend to fluctuate temporally. Even more moderate voices point out that whatever positive results came of lobotomies were too heavily weighted toward the elimination of behavior that was inconvenient to medical personnel and families of patients, without consideration being given to the quality of life of the patients themselves.

In addition, there has been eloquent support for the rights of disturbed persons, and legal decisions have upheld those rights. The use of psychosurgery has come to be limited to patients who are not helped by existing chemotherapeutic or psychoanalytical methodology. This number is small, but psychosurgical procedures are still highly controversial.

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Sanford S. Singer

See also:

Abnormality: Biomedical Models; Aggression: Reduction and Control; Anxiety Disorders; Electroconvulsive Therapy; Madness: Historical Concepts; Psychoactive Drug Therapy; Psychosurgery; Schizophrenia.

MADNESS
Historical Concepts

Type of psychology: Psychopathology
Fields of study: Models of abnormality

Throughout history and, it might be assumed, prehistory, human society has tried to explain the abnormal behavior of people with mental disorders. From ancient concepts of animism and demonology to modern biological and psychological explanations, these attempts have influenced the way society treats those who are labeled "mad."

Principal terms

COGNITION: that aspect of human functioning involving thought, decision making, perception, memory, and other basic mental functions

DEMONOLOGY: the belief that evil spirits inhabit the world and may actually "take over" a personality

LABELING: attaching a name to some aspect of a person which may influence how that person is perceived in almost all aspects of his or her life

LOBOTOMY: an operation on the frontal lobe of the brain which was used on some mental patients whose behavior was aggressive or uncontrollable

MORAL TREATMENT: a way of helping mentally ill patients which emphasized humane treatment, useful work, and ethical and religious teaching

PERCEPTION: the psychological process by which information which comes in through the sense organs is meaningfully interpreted by the brain

PHENOTHIAZINES: a group of drugs, some forms of which decrease or eliminate psychotic symptoms

PSYCHOSIS: a term which includes the most severe mental disorders such as the schizophrenias and manic-depressive (bipolar) disorder

Overview

In many ways, the history of madness is really the story of how society has understood and behaved toward those whom it considers to be "mad." Many anthropologists and historians believe that, throughout prehistory and up to fairly recent times, madness was almost universally believed to be the result of the possession of a person by evil spirits. The idea is by no means dead, even at the present time. Since animism and demonology were nearly universal ideas in prehistorical and (to some extent) medieval religion, an idea such as demoniacal possession seemed quite congruent with a point of view which tended to believe that all things were inhabited by souls or spirits which at times could be quite evil. This idea—that possession was responsible for the strange and incomprehensible behaviors of the mentally ill person—was for a long time the dominant theory of madness.

Benjamin Rush, one of the founders of the American Psychiatric Association, invented this "tranquillizing chair" in 1811 to help calm the mentally ill. (National Library of Medicine)

One of the terrible consequences of the belief in supernatural possession by demons was the inhumane treatment which often resulted. An example is found in the book of Leviticus in the Bible, which many scholars believe is a compilation of laws which had been handed down orally in the Jewish community for as long as a thousand years until they were written down, perhaps about 700 B.C.E. Leviticus 20:27, in the King James version, reads, "A man or a woman that hath a

familiar spirit . . . shall surely be put to death: they shall stone him with stones." The term "familiar spirit" suggests demoniac possession, and the recommended treatment seems worse than the disease.

It is important to remember, however, that the mentally ill were often very difficult to deal with. There were no "cures," there was no real understanding, and undoubtedly there was often considerable fear—some based on the socially unaceptable behavior of the "mad" person, some based on the fearsome unanswered questions raised by the very existence of these people.

There were exceptions to the possession theory and the inhumane treatment to which it often led. Hippocrates, who lived around 300 B.C.E. in Greece and who is regarded as the father of medicine, believed that mental illness had biological causes and could be explained by human reason through empirical study. Although his attempt to develop a natural understanding of mental illness did not result in a correct explanation, it did change attitudes toward the mentally ill. Hippocrates found no cure, but he did recommend that the mentally ill be treated with a general humane approach, as other ill people would be treated. Humane treatment of the mentally ill (which in the eighteenth century came to be known as the "moral treatment") was often the best that physicians and others could do; it has much to recommend it, even in the present.

The period of Western history that is sometimes known as the Dark Ages was particularly dark for the mentally ill. Folk myth, theology, and occult beliefs and practices of all kinds often led to terrible treatment of those persons with a mental illness or defect. Although some educated and thoughtful people, even in that period, held humane views toward the mentally ill, they were in the minority.

It was not until what could be considered the modern historical period, the end of the eighteenth century—the time of the French Revolution—that major changes took place in the treatment of the mentally ill. There was a change in attitudes toward the mentally ill, toward their treatment, and toward the causes of their strange behaviors. The man who, because of his courage, has become a symbol of this new attitude was the French physician Philippe Pinel (1745-1826). Appointed physician in chief of the Bicêtre Hospital in Paris in 1792, Pinel literally risked his neck at the guillotine. The Bicêtre was one of a number of "asylums" which had developed in Europe and in Latin America over several hundred years to house the mentally ill. Often started with the best of intentions, most of the asylums had become the epitome of inhumanity, more like prisons (or worse) than hospitals.

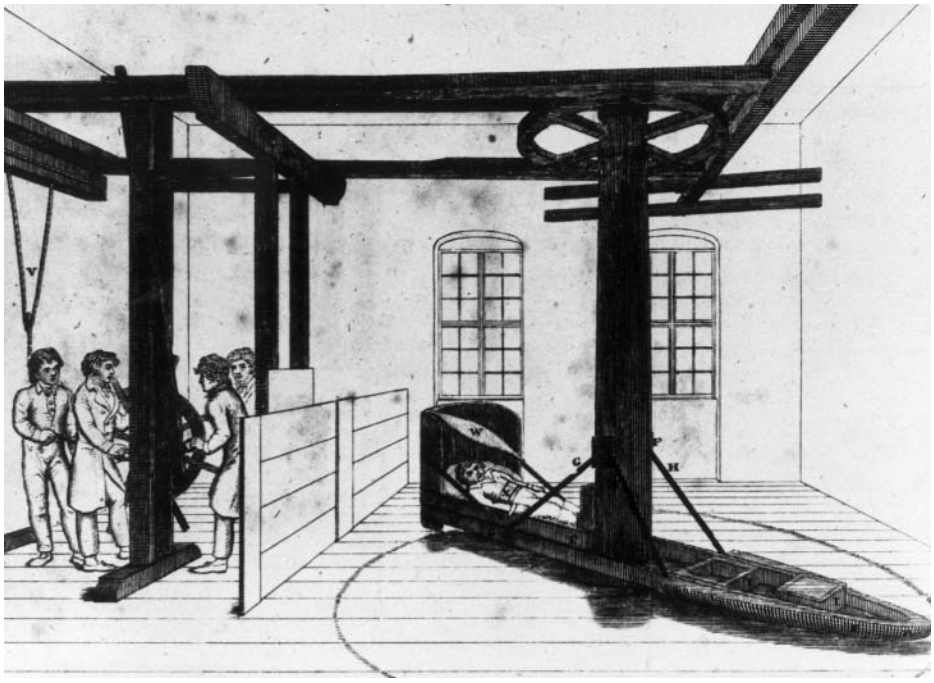
In the Bicêtre, patients were often chained to the walls of their cells and lacked even the most elementary amenities. Pinel insisted to a skeptical committee of the Revolution that he be permitted to remove the chains from the patients. In one of the great, heroic acts in human history, Pinel restored the "moral treatment" to the mentally ill, risking grave personal consequences if his humane experiment had turned out badly.

This change was occurring in other places at about the same time. A Quaker, William Tuke, started the York Retreat and fought the inhumane beliefs and practices prevalent in Great Britain. In America, Benjamin Rush, a founder of the American Psychiatric Association, applied the moral treatment from his Philadel-

phia hospital. Toward the middle of the nineteenth century, a crusader by the name of Dorothea Dix fought for the establishment of state mental hospitals for the mentally ill. Under the influence of Dix, some thirty-two states established at least one mental hospital. Dix had been influenced by the moral model, as well as by the medical sciences, which were so rapidly developing in the nineteenth century. Unfortunately, the state mental hospital, established under the most humanitarian of motives, soon tended to lose its character as a "retreat" for some of the victims of society. In 1946, a former mental patient named Mary Jane Ward published a book called *The Snake Pit*, whose very title suggests the negative image that many had of the large mental institution.

The nineteenth century was the first time in human history (with some exceptions already noted) when a number of scientists turned their attention to abnormal behavior. For example, the German psychiatrist Emil Kraepelin spent much of his life trying to develop a scientific classification system for psychopathology. Sigmund Freud attempted to develop a science of mental illness. Although many of Freud's specific points have not withstood empirical investigation, perhaps his greatest contribution was his insistence that scientific principles apply to mental illness. He believed that abnormal behavior is not caused by supernatural forces and does not arise in a chaotic, random way, but that it can be understood as serving some psychological purpose.

Many of the medical/biological treatments for mental illness in the first half of the twentieth century were frantic attempts to deal with very serious problems—



A "centrifugal bed" for spinning mental patients in 1818. (National Library of Medicine)

attempts made by clinicians who had few therapies to use. The attempt to produce convulsions (which often did seem to make people "better," at least temporarily) was popular for a decade or two. One example was insulin shock therapy, in which convulsions were induced in mentally ill people by insulin injection. Electroconvulsive (electric shock) therapy was also used. Originally it was primarily used with patients who had schizophrenia, perhaps the worst form of psychosis. Although it was not very effective with schizophrenia, it was found to be useful with patients who had resistant forms of depressive psychosis. Another treatment sometimes used, beginning in the 1930's, is prefrontal lobotomy. Many professionals today would point out that the use of lobotomy illustrates the almost desperate search for an effective treatment for the most aggressive or the most difficult psychotic patients. As originally used, lobotomy was merely an imprecise slashing of the frontal lobe of the brain.

The real medical breakthrough in the treatment of psychotic patients was associated with the use of certain drugs from a chemical family known as phenothiazines. Originally used in France as a tranquilizer for surgery patients, their potent calming effect attracted the interest of psychiatrists and other mental health workers. One drug of this group, chlorpromazine, was found to reduce or eliminate psychotic symptoms in many patients. This and similar medications came to be referred to as antipsychotic drugs. Although their mechanism of action is still not completely understood, there is no doubt that they worked wonders with many severely ill patients (although they did have severe side effects in some patients). The drugs allowed patients to function outside the hospital and often to lead normal lives. They enabled many patients to benefit from psychotherapy. The approval of the use of chlorpromazine as an antipsychotic drug in the United States in 1955 revolutionized the treatment of many mental patients. Individuals who, prior to 1955, might have spent much of their lives in a hospital could now control their illness effectively enough to live in the community, work at a job, attend school, and be a functioning member of a family.

In 1955, the United States had approximately 559,000 patients in state mental hospitals; seventeen years later, in 1972, the population of the state mental hospitals had decreased almost by half, to approximately 276,000. Although all of this cannot be attributed to the advent of the psychoactive drugs, they undoubtedly played a major role. The phenothiazines had finally given medicine a real tool in the battle with psychosis. One might believe that the antipsychotic drugs, combined with an up-to-date edition of the moral treatment, would enable society to eliminate madness as a major human problem. Unfortunately, good intentions go awry. The "major tranquilizers" can easily become chemical straitjackets; those who prescribe the drugs sometimes forget about the human beings they are treating. The makers of social policy saw what appeared to be the economic benefits of reducing the role of the mental hospital, but did not foresee the homeless psychotics who are often the end product of what is sometimes called "deinstitutionalization."

Applications

The twentieth century saw the exploration of many avenues in the treatment of mental disorders. Treatments ranging from classical psychoanalysis to cognitive and humanistic therapies to the use of therapeutic drugs were applied. Psychologists examined the effects of mental disorders on many aspects of life, including cognition and personality. These disorders affect the most essential of human functions, including cognition, which has to do with the way in which the mind thinks and makes decisions. Cognition does not work in "ordinary" ways in the person with a serious mental illness, making his or her behavior very difficult for family, friends, and others to understand. Another aspect of cognition is perception. Perception has to do with the way that the mind, or brain, interprets and understands the information which comes to a person through the senses. There is a general consensus among most human beings about what they see and hear, and perhaps to a lesser extent about what they touch, taste, and smell. The victim of "madness," however, often perceives the world in a much different way. The victim of mental illness may see objects or events that no one else sees, phenomena called hallucinations. The hallucinations may be visual—a frightening wild animal which is seen by no one else—or the person may hear a voice accusing him or her of terrible crimes or behaviors.

A different kind of cognitive disorder is delusions. Delusions are untrue and often strange ideas, usually growing out of psychological needs or problems of a person who may have only tenuous contact with reality. A woman, for example, may believe that other employees are plotting to harm her in some way when, in fact, they are merely telling innocuous stories around the water cooler. Sometimes people with mental illness will be disoriented, which literally means that they do not know where they are in time (what year, what season, or what time of day) or in space (where they live, where they are at the present moment, or where they are going).

In addition to the cognitively related functions which create so much havoc in mentally ill persons, these persons may also have emotional problems that go beyond the ordinary. For example, they may live on such an emotional "high" for weeks or months at a time that their behavior is exhausting both to themselves and to those around them. They may exhibit bizarre behavior in which, for example, they may talk about giving away vast amounts of money (which they do not have), or they may go without sleep for days until they literally drop from exhaustion. This emotional "excitement" which seems to dominate their lives is called mania. The word "maniac" comes from this terrible emotional extreme.

At the other end of the emotional spectrum is clinical depression. This does not refer to the ordinary "blues" of daily life, with all its ups and downs, but to an emotional emptiness in which the individual seems to have lost all emotional "energy." The individual often seems completely apathetic. The person may see nothing which makes life worth living and may have anhedonia, which refers to an inability to experience pleasure of almost any kind.

Anyone interacting with a person with these sorts of problems comes to think of him or her as being different from most other human beings. Their behavior is

regarded, with some justification, as bizarre and unpredictable. They are often labeled with a term that sets them apart, such as "crazy" or "mad." There are many words in the English language that have been, or are, used to describe these persons—many of them quite cruel and derogatory. Since at least the eighteenth century, the preferred word among many behavioral and medical scientists to designate this individual has been the word "psychotic," which could be translated as suffering from a "sickness of the soul." Until recently, the term psychotic was used to differentiate those who had these severe cognitive/perceptual and emotional problems from those who had "neurosis" (literally, a disease of the nerves). Whether neurosis is always less disabling or disturbing than psychosis has been an open question. An attempt was made to deal with this dilemma in 1980, when the third edition of the *Diagnostic and Statistical Manual of Mental Disorders* (DSM-III) of the American Psychiatric Association officially dropped the term "neurosis" from the diagnostic terms.

Perspective and Prospects

The contemporary approach to "madness," at its best, emphasizes a humane approach to the cognitive and emotional dysfunctions which characterize mental illness. Psychology's best understandings of these behaviors—understandings which have arisen from knowledge in biological and medical science, psychological and social science—are incomplete. What psychologists do understand has often helped them to treat and to care for the human beings who exhibit these puzzling behaviors in ways that offer hope as well as healing.

In 1963, President John F. Kennedy signed the Community Mental Health and Retardation Act. The goal was to set up areas covering the United States which would offer services to mentally and emotionally disturbed citizens and their families, incorporating the best that had been learned and that would be learned from science and from common humanity. Outpatient services in the community, emergency services, "partial" hospitalizations (adult day care), consultation, education, and research were among the programs built into the act. Not perfect, it nevertheless demonstrated how far science had come from the days when witches were burned at the stake and the possessed were stoned to death.

When one deals with "madness," one is dealing with human behavior—both the behavior of the individual identified as having the problem and the behavior of the rest of society. If society is going to solve the problem, it must take into account both poles. How society deals with the mentally ill is crucial. D. L. Rosenhan, in a well-known 1973 study published under the title "On Being Sane in Insane Places," showed how easy it is to be labeled "crazy" and how difficult it is to get rid of the label. The real essence of the study is how one's behavior is interpreted and understood on the basis of the labels that have been applied. (The "pseudopatients" in the study had been admitted to a mental hospital and given a diagnosis—a label—of schizophrenia. Consequently, even their writing of notes in a notebook was regarded as evidence of their illness.) To understand madness is not merely to understand something that some people have, but also to understand social and cultural biases and the way in which a culture interprets behavior.

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James Taylor Henderson

See also:

Abnormality; Abnormality: Biomedical Models; Abnormality: Psychodynamic Models; Abnormality: Sociocultural Models; Lobotomy; Psychosurgery; Psychotherapy: Historical Approaches to Treatment; Schizophrenia.

Manic-Depressive Disorder

Type of psychology: Psychopathology
Fields of study: Depression

This recurrent affective (mood) illness is characterized either by alternating periods of extreme depression and extreme elation or, less often, by only one of these moods.

Principal terms

AFFECTIVE DISORDERS: a group of disorders characterized by a disturbance of mood accompanied by a full or partial manic or depressive syndrome that is not caused by any other physical or mental disorder

BIPOLAR: a manic-depressive course with both manias and depressions

DUAL DIAGNOSIS: when a patient receives the diagnosis of a substance use disorder and another major clinical syndrome, such as manic-depressive disorder

LITHIUM: a drug used in the treatment of manic depression

PSYCHOSIS: any mental disorder in which the personality is seriously disorganized

UNIPOLAR: a manic-depressive course with recurrent depression and no mania

Causes and Symptoms

Although the causes of manic-depressive illness (often called manic depression or bipolar disorder) are not known, research indicates that some persons may be genetically predisposed to respond readily with manic or depressive episodes to internal and external influences. It is believed that insufficient resolution of deep personality problems may also play a role. While changes in the metabolism of the brain are thought to be significant in the development of manic depression, both psychological and nonpsychological stresses are able to precipitate episodes. It is often not possible to find one precipitating factor, however, since there is presumably a complex interaction between the effects of internal and external influences in persons suffering from this disease.

Manic depression is an illness that occurs in attacks, or episodes. These may be attacks of mania (periods of extreme elation and increased activity) or attacks of depression (periods of abnormal sadness and melancholy). A patient may have both manias and depressions (a bipolar course) with varying levels of intensity for each type of episode. Occasionally, the disease presents a mixture of manic and depressive features; this condition is referred to as a "mixed state." The degree, type, and chronicity of cognitive, perceptual, and behavioral disorganization determine the subclassifications, or stages, of mania. In increasing order of severity, these stages are hypomania, acute mania, and delirious mania (severe mania with psychotic overtones). Recent work indicates that many variants of this disorder exist.

SYMPTOMS OF MANIA

- increased energy, activity, restlessness, racing thoughts and rapid talking
- denial that anything is wrong
- excessive "high" or euphoric feelings
- extreme irritability and distractibility
- decreased need for sleep
- unrealistic beliefs in one's ability and powers
- uncharacteristically poor judgment
- a sustained period of behavior that is different from the person's usual behavior
- increased sexual drive
- abuse of drugs, particularly cocaine, alcohol and sleeping medications
- provocative, intrusive, or aggressive behavior

Manic depression occurs in about one to two persons out of every hundred, at some time in life, of such severity that hospitalization is required. More women than men suffer from the disease. The onset of the disease frequently occurs between the ages of twenty and fifty, but it may appear for the first time at fifteen years of age and as late as sixty to seventy years. Manic and depressive episodes present themselves differently in different persons; they can even vary within a particular patient from one time to another. Although mania has characteristic features, not all features are present during each manic episode.

Prominent features of manic episodes are elation, easily aroused anger, and increased mental activity. The elation varies from unusual vigor to uninhibited enthusiasm. The anger most often takes the form of irritability. Manic patients become annoyed if other people are unable to keep up with their racing thoughts. Intellectual activity takes place with lightning speed, ideas race through the mind, speech flows with great rapidity and almost uninterruptedly, and puns alternate with caustic commentary.

During a manic episode, patients are often excessively self-confident and lacking in self-criticism. This produces a previously unknown energy, and when that energy is combined with racing thoughts, indefatigability, and lack of inhibition, the consequences are often disastrous. During manic episodes, patients may destroy their relationships, ruin their reputations, or create financial disasters. Manic patients usually sleep very little. They rarely feel tired and are usually kept awake by the rapid flow of ideas. Sexual activity may also be increased. Manic patients often neglect to eat and may lose weight. The combination of violent activity, decreased food intake, and an inadequate amount of sleep may lead to physical exhaustion.

Depressions are in many respects the opposite of manias. They are characterized by sadness, a lack of self-confidence, and decreased mental activity. The sadness may vary from a slight feeling of being "down" to the bleakest despair. Ideas are few, thoughts move slowly, and memory function is impaired. Frequently, depressed patients feel tired and emotionally drained; they feel the need to cry but are unable to do so. Weighed down by feelings of guilt and self-reproach, they may contemplate or even commit suicide. The depressed patient's courage and self-confidence are often eroded, and, as a result, the patient may withdraw socially, lack initiative and energy, feel that obstacles are insurmountable, and have diffi-

culty making even trivial decisions. Because of their low self-esteem and feelings of inadequacy, patients suffering from depression often fear social interaction and become anxious, agitated, and restless in a crowd. Sleep disturbances are also frequent. Occasionally, there is an increased need for sleep, but more often patients have difficulty sleeping. Some patients find it difficult to fall asleep, others wake up frequently during the night, and others wake up early with feelings of anxiety. Depressed patients often experience variations in mood over the course of a day. They are, typically, depressed late at night and in the early morning. The desire to stay in bed is overwhelming, and the first hours of the day are difficult to get through.

SYMPTOMS OF DEPRESSION

- persistent sad, anxious, or empty moods
- feelings of hopelessness or pessimism
- feelings of guilt, worthlessness, or helplessness
- loss of interest or pleasure in ordinary activities, including sex
- decreased energy, a feeling of fatigue or of being "slowed down"
- difficulty concentrating, remembering, or making decisions
- restlessness or irritability
- sleep disturbances
- loss of appetite and weight, or weight gain
- chronic pain or other persistent bodily symptoms that are not caused by physical disease
- thoughts of death or suicide; including suicide attempts

Depressions are often accompanied by physical transformations. The muscles give the impression of being slack, the facial expression is static, and movement is slow. There may be constipation, menstruation may stop, and sexual interest and activity may decrease or disappear completely for a time. Appetite is reduced, and there is a resulting loss of weight. The cessation of depression is sometimes followed by a light and transient mania, which may be seen as a reaction to the depression or as a sign of relief that it is over.

In addition to manias and depressions, manic-depressive disease may present mixed states during which signs of mania and depression are present concurrently. Patients who experience mixed states may be sad and without energy but also irritable, or they may be manic and restless yet feel an underlying melancholy. Mixed states may occur as independent episodes, but they are seen more often during transitions from mania to depression or from depression to mania. During these periods of transition, the condition may alternate between mania and depression several times within the course of a day. During the intervals between episodes, the patients often enjoy mental health and stability.

Treatment and Therapy

Until the 1950's, manic-depressive illness had remained intractable, frustrating the best efforts of clinical practitioners and their predecessors. This long history ended abruptly with the discovery of the therapeutic effects of lithium. In an ironic turn of events, the pharmacologic revolution then initiated a renaissance in the psychotherapy of manic-depressive patients. Substantially freed from the severe disruptions of mania and the profound withdrawal of depression, patients, with the help

of their therapists, focused on the many psychological issues related to the illness and confronted basic developmental tasks. Even a combination of drugs and psychotherapy, however, did not yield a completely satisfactory outcome for every patient. The treatment approaches that are available, however, do allow most manic-depressive patients to lead relatively normal lives.

Electroconvulsive therapy (ECT) is one alternative to medications in treating acute manic-depressive disorder. Although ECT may be used to treat severely manic patients, those who have proven unresponsive to drugs, and those in mixed states with a high risk of suicide, it is used primarily for severe depressions. In ECT, following narcosis (an unconscious state induced by narcotics), certain parts of the patient's brain are stimulated electrically through electrodes placed on the skin. This stimulation elicits a seizure, but since the drug relaxes the muscles, the seizure manifests as muscle twitching only. The patients do not feel the treatment, but during the hours following the treatment, they may have headaches and feel tenderness of the muscles. Transitory memory impairment may also occur. Treatment, which occurs two to four times a week for three to four weeks, leads to amelioration of symptoms in most patients. ECT may be given at a hospital or on an outpatient basis.

For treatment of manic agitation, the so-called neuroleptics are often used. These are sedative drugs such as chlorpromazine (Largactil, Thorazine) and haloperidol (Haldol). Neuroleptics exert a powerful tranquilizing effect on anxiety, restlessness, and tension. They also attenuate or relieve hallucinations and delusions. Neuroleptics are not specific for any single disease. They may be used, possibly in conjunction with lithium, in the treatment of mania, and they may be used in depressions that are accompanied by delusions. Neuroleptics may, however, produce side effects involving the muscles and the nervous system.

Antidepressants act, as the name indicates, on depression, but only on abnormal depression; they do not affect ordinary sadness or grief. They are drugs such as imipramine (Tofranil), amitriptyline (Elavil, Tryptizol), and fluoxetine (Prozac). The side effects of antidepressants may include tiredness, mouth dryness, tremor, constipation, difficulty in urinating, and a tendency to faint. Changes in heart rate and rhythm may also occur, and careful evaluation is necessary in patients with cardiac disease.

Treatment with antidepressants is often continued for some time after disappearance of the symptoms; for example, three to four months. Occasionally, antidepressant therapy precipitates episodes of mania, and patients with previous attacks of mania may have to discontinue antidepressants earlier than other patients. In patients with a bipolar course who require prophylactic (preventive) treatment, lithium is indicated. Patients with a unipolar course may be treated prophylactically with either lithium or antidepressants.

Lithium, a metallic element discovered by a Swedish chemist in 1818, is produced from lithium-containing minerals such as spodumene, amblygonite, lepidolite, and petalite. As a drug, lithium is always used in the form of one of its salts; for example, lithium carbonate or lithium citrate. It is the lithium portion of these salts that is effective medically. Lithium was introduced into medicine in

1850 for the treatment of gout, and during the following century many medical uses of the element were proposed. It was used, for example, as a stimulant, as a sedative, for the treatment of diabetes, for the treatment of infectious diseases, as an additive to toothpaste, and for the treatment of malignant growths. The efficacy of lithium in these conditions was not proved, however, and lithium treatment never became widespread.

In 1949, an Australian psychiatrist, John Cade, published an article that forms the basis of all later lithium treatment. The prophylactic action of lithium in manic-depressive illness was debated in the psychiatric literature for some years, but extensive trials in many countries have fully documented the efficacy of the drug. Its prophylactic action is exerted against both manic and depressive relapses and can be seen in unipolar as well as bipolar patients. One of the characteristic features of lithium is that it removes manic symptoms without producing sedation, unlike treatment with neuroleptics, which are also effective in the treatment of mania but which exert sedative action. Lithium may occasionally produce side effects, such as nausea, stomachache, tremor of the hands, and muscle weakness, but these symptoms are usually neither severe nor incapacitating. The greatest drawback of the treatment is that the full antimanic effect is usually not seen until after six to eight days of treatment, and sometimes it is necessary to supplement lithium with a neuroleptic drug.

In addition to being used in the treatment of manic episodes, lithium is also used in the prevention of manic-depressive illness; moreover, the drug's prophylactic effect is almost as beneficial in the treatment of depression as it is in the treatment of mania. While lithium may also be used to treat depressive episodes, this use is less widespread because treatment with antidepressants and electric convulsive therapy appear to be more effective in cases of depression.

Although prophylaxis denotes prevention, lithium is unable to prevent the development of manic-depressive illness. Lithium prophylaxis merely prevents relapse so that manic and depressive recurrences become less frequent or disappear during treatment. Thus, prophylactic lithium keeps the illness under control but does not cure it. If the patient's lithium therapy ceases, the disease is likely to reappear, exhibiting episodes as frequent and severe as those that occurred before therapy. Therefore, it is necessary that patients continue taking lithium during periods in which no signs of illness are present.

Manic-depressive illness is treated most effectively with a combination of lithium or other medications and adjunctive psychotherapy. Drug treatment, which is primary, relieves most patients of the severe disruptions of manic and depressive episodes. Psychotherapy can assist them in coming to terms with the repercussions of past episodes and in comprehending the practical implications of living with manic-depressive illness.

Although not all patients require psychotherapy, most can benefit from individual, group, and/or family therapy. Moreover, participation in a self-help group is often useful in supplementing or supplanting formal psychotherapy. Psychotherapeutic issues are dictated by the nature of the illness: Manifested by profound changes in perception, attitudes, personality, mood, and cognition, manic-depressive illness can

lead to suicide, violence, alcoholism, drug abuse, and hospitalization. Although reactions vary widely, patients typically feel angry and ambivalent about both the illness and its treatment. They may deny its existence, its severity, or its consequences, and they are often concerned about issues such as relationships and the possibility of genetically transmitting the illness to their children.

No one technique has been shown to be superior in the psychotherapy of manic-depressive patients. The therapist is guided by knowledge of both the illness itself and its manifestation in the individual patient. In style and technique, the therapist must remain flexible in order to adjust to the patient's fluctuating levels of dependency and mood change, cognition and behavior. The therapist must be especially alert to the countertransference issues that commonly occur when working with manic-depressive patients. In addition, educating patients and their families is essential because it helps them to recognize new episodes.

Perspective and Prospects

Manic-depressive illness is among the most consistently identifiable of all mental disorders, and it is also one of the oldest; it is discernible in descriptions in the Old Testament, and it was recognized in clinical medicine almost two thousand years ago. The medical writers of ancient Greece (the Hippocratic school) conceived of mental disorders in terms that sound remarkably modern. They believed that melancholia was a psychological manifestation of an underlying biological disturbance—specifically, a perturbation in brain function. Early conceptions of "melancholia" and "mania" were, however, broader than those of modern times. These two terms, together with "phrenitis," which roughly corresponds to an acute organic delirium, comprised all mental illnesses throughout most of the ancient period.

As they did with other illnesses, the Hippocratic writers argued forcefully that mental disorders were not caused by supernatural or magical forces, as primitive societies had believed. Their essentially biological explanation for the cause of melancholia, which survived until the Renaissance, was part of the prevailing understanding of all health as an equilibrium of the four humors—blood, yellow bile, black bile, and phlegm—and all illness as a disturbance of this equilibrium. First fully developed in the Hippocratic work *Nature of Man* (c. 400 B.C.E.), the humoral theory linked the humors with the seasons and with relative moistness. An excess of black bile was seen as the cause of melancholia, a term that literally means "black bile." Mania, by contrast, was usually attributed to an excess of yellow bile.

Reflections on the relationship between melancholia and mania date back at least to the first century B.C.E. and Soranus of Ephesus. Aretaeus of Cappadocia, who lived in the second century C.E., appears to have been the first to suggest that mania was an end-stage of melancholia, a view that was to prevail for centuries to come. He isolated "cyclothymia" (an obsolete term for mild fluctuations of the manic-depressive type) as a form of mental disease presenting phases of depression alternating with phases of mania. Although Aretaeus included syndromes that in the twentieth century would be classified as schizophrenia, his clear descriptions

of the spectrum of manic conditions are impressive even in modern times.

The next significant medical writer, Galen of Pergamon (131-201 C.E.), firmly established melancholia as a chronic condition. His few comments on mania included the observation that it can be either a primary disease of the brain or secondary to other diseases. His primary contribution was his all-encompassing elaboration of the humoral theory, a system so compelling that it dominated medical thought for more than a millennium.

Medical observations in succeeding centuries continued to subscribe to the conceptions of depression and mania laid down in classical Greece and Rome. Most authors wrote of the two conditions as separate illnesses yet suggested a close connection between them. Yet where mania and depression are considered in the historical medical literature, they are almost always linked.

The explicit conception of manic-depressive illness as a single disease entity dates from the mid-nineteenth century. Jean Pierre Falret and Jules Baillarger, French "alienists," independently and almost simultaneously formulated the idea that mania and depression could represent different manifestations of a single illness. In 1854, Falret described a circular disorder that he expressly defined as an illness in which the succession of mania and melancholia manifested itself with continuity and in an almost regular manner. That same year, Baillarger described essentially the same thing, emphasizing that the manic and depressive episodes were not two different attacks, but two different stages of the same attack. Despite the contributions of Falret, Jeanne-Étienne-Dominique Esquirol, and other observers, however, most clinical investigators continued to regard mania and melancholia as separate chronic entities that followed a deteriorating course.

It was left to the German psychiatrist Emil Kraepelin (1856-1926) to distinguish psychotic illnesses from one another and to draw the perimeter clearly around manic-depressive illness. He emphasized careful diagnosis based on both longitudinal history and the pattern of current symptoms. By 1913, in the eighth edition of Kraepelin's textbook of psychiatry, virtually all of melancholia had been subsumed into manic-depressive illness.

Wide acceptance of Kraepelin's broad divisions led to further explorations of the boundaries between the two basic categories of manic-depressive illness and dementia praecox, the delineation of their similarities, and the possibility that subgroups could be identified within two basic categories. Kraepelin's synthesis was a major accomplishment because it formed a solid and empirically anchored base for future developments.

During the first half of the twentieth century, the views of Adolf Meyer (1866-1950) gradually assumed a dominant position in American psychiatry, a position that they maintained for several decades. Meyer believed that psychopathology emerged from interactions between an individual's biological and psychological characteristics and his or her social environment. This perspective was evident in the label "manic-depressive reaction" in the first official American Psychiatric Association diagnostic manual, which was published in 1952. When the Meyerian focus, considerably influenced by psychoanalysis, turned to manic-depressive illness, the individual in the environment became the natural center of study, and

clinical descriptions of symptoms and the longitudinal course of the illness were given less emphasis.

Eugen Bleuler (1857-1939), in his classic contributions to descriptive psychiatry, departed from Kraepelin by conceptualizing the relationship between manic-depressive (affective) illness and dementia praecox (schizophrenia) as a continuum without a sharp line of demarcation. Bleuler also broadened Kraepelin's concept of manic-depressive illness by designating several subcategories and using the term "affective illness." His subcategories of affective illness anticipated the principal contemporary division of the classic manic-depressive diagnostic group—the bipolar-unipolar distinction. The bipolar-unipolar distinction represents a major advance in the classification of affective disorders primarily because it provides a basis for evaluating genetic, pharmacological, clinical, and biological differences rather than representing a purely descriptive subgrouping. As research on this disorder continues, it is likely that the relationship of manic depression to substance use disorders will increase. In 1997, it was estimated that at least 50 percent of individuals affected by one are affected by the other. As such, common mechanisms of problems related to these two types of disorders may lead to more specific treatments designed to address situations when there is a dual diagnosis.

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Genevieve Slomski
updated by Nancy A. Piotrowski

See also:

Abnormality: Biomedical Models; Anxiety Disorders; Depression; Electroconvulsive Therapy.

Memory Loss

Type of psychology: Memory
Fields of study: Organic disorders

An impairment of memory which may be total or limited, sudden or gradual.

Causes and Symptoms

Memory impairment is a common problem, especially among older people. It occurs in various degrees and may be associated with other evidence of brain dysfunction. Amnesia is complete memory loss.

In benign forgetfulness, the memory deficit affects mostly recent events, and although a source of frustration, it seldom interferes with the individual's professional activities or social life. An important feature of benign forgetfulness is that it is selective and affects only trivial, unimportant facts. For example, one may misplace the car keys or forget to return a phone call, respond to a letter, or pay a bill. Cashing a check or telephoning someone with whom one is particularly keen to talk, however, will not be forgotten. The person is aware of the memory deficit, and written notes often are used as reminders. Patients with benign forgetfulness have no other evidence of brain dysfunction and maintain their ability to make valid judgments.

In dementia, the memory impairment is global, does not discriminate between important and trivial facts, and interferes with the person's ability to pursue professional or social activities. Patients with dementia find it difficult to adapt to changes in the workplace, such as the introduction of computers. They also find it difficult to continue with their hobbies and interests.

The hallmark of dementia is no awareness of the memory deficit, except in the very early stages of the disease. This is an important difference between dementia and benign forgetfulness. Although patients with early dementia may write themselves notes, they usually forget to check these reminders or may misinterpret them. For example, a man with dementia who is invited for dinner at a friend's house may write a note to that effect and leave it in a prominent place. He may then go to his host's home several evenings in succession because he has forgotten that he already has fulfilled this social engagement. As the disease progresses, patients are no longer aware of their memory deficit.

In dementia, the memory deficit does not occur in isolation but is accompanied by other evidence of brain dysfunction, which in very early stages can be detected only by specialized neuropsychological tests. As the condition progresses, these deficits become readily apparent. The patient is often disoriented regarding time and may telephone relatives or friends very late at night. As the disease progresses, the disorientation affects the patient's environment: A woman with dementia may wander outside her house and be unable to find her way back, or she may repeatedly ask to be taken back home when she is already there. In later stages, patients may not be able to recognize people whom they should know: A man may

think that his son is his father or that his wife is his mother. This stage is particularly distressing to the caregivers. Patients with dementia may often exhibit impaired judgment. They may go outside the house inappropriately dressed or at inappropriate times, or they may purchase the same item repeatedly or make donations that are disproportional to their funds. Alzheimer's disease is one of the most common causes of dementia in older people.

Multiple infarct dementia is caused by the destruction of brain cells by repeated strokes. Sometimes these strokes are so small that neither the patient nor the relatives are aware of their occurrence. When many strokes occur and significant brain tissue is destroyed, the patient may exhibit symptoms of dementia. Usually, however, most of these strokes are quite obvious because they are associated with weakness or paralysis in a part of the body. One of the characteristic features of multiple infarct dementia is that its onset is sudden and its progression is by steps. Every time a stroke occurs, the patient's condition deteriorates. This is followed by a period during which little or no deterioration develops until another stroke occurs, at which time the patient's condition deteriorates further. Very rarely, the stroke affects only the memory center, in which case the patient's sole problem is amnesia. Multiple infarct dementia and dementia resulting from Alzheimer's disease should be differentiated from other treatable conditions which also may cause memory impairment, disorientation, and poor judgment.

Depression, particularly in older patients, may cause memory impairment. This condition is quite common and at times is so difficult to differentiate from dementia that the term "pseudodementia" is used to describe it. One of the main differences between depression that presents the symptoms of dementia and dementia itself is insight into the memory deficit. Whereas patients with dementia are usually oblivious of their deficit and not distressed (except those in the early stages), those with depression are nearly always aware of their deficit and are quite distressed. Patients with depression tend to be withdrawn and apathetic, given a marked disturbance of affect, whereas those with dementia demonstrate emotional blandness and some degree of lability. One of the problems characteristic of depressed patients is their difficulty in concentrating. This is typified by poor cooperation and effort in carrying out tasks with a variable degree of achievement, coupled with considerable anxiety.

Amnesia is sometimes seen in patients who have sustained a head injury. The extent of the amnesia is usually proportional to the severity of the injury. In most cases, the complete recovery of the patient's memory occurs, except for the events just preceding and following the injury.

Treatment and Therapy

Memory impairment is a serious condition which can interfere with one's ability to function independently. Every attempt should be made to identify the underlying condition because, in some cases, a treatable cause can be found and the memory loss reversed. Furthermore, it may soon be possible to arrest the progress of amnesia and memory loss and even to treat the dementias which now are considered as irreversible, such as Alzheimer's disease and multiple infarct dementia.

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See also:

Alzheimer's Disease; Amnesia, Fugue, and Multiple Personality; Anxiety Disorders; Brain Disorders; Dementia; Depression; Forgetting and Forgetfulness; Geriatric Psychiatry.

Mental Health Practitioners

Type of psychology: Psychotherapy
Fields of study: Behavioral therapies; cognitive therapies; psychodynamic therapies

Mental health practitioners are those professionals who are involved in the treatment of psychological and emotional disorders. They include clinical psychologists, counseling psychologists, psychiatrists, and psychiatric social workers; their professional preparations differ considerably, but their contributions are all essential.

Principal terms

ASSESSMENT: a process to determine the assets and liabilities of the patient through the use of interviews and a battery of psychological tests
BEHAVIORAL MEDICINE: the application of psychological knowledge to physical conditions such as ulcers, headaches, smoking, or obesity
DIAGNOSIS: the process of determining a person's condition or problem; psychologists use interview techniques and psychological tests to aid in this process
ELECTROCONVULSIVE THERAPY (ECT): a treatment for severe depression in which an electric current is passed through the brain of the patient
FORENSIC PSYCHOLOGY: the application of psychological skills in the legal profession—for example, in jury selection, sanity determination, and assessing competency to stand trial
NEUROPSYCHOLOGY: the branch of psychology that relates brain function with behavior
PSYCHOTHERAPY: the treatment of psychological or emotional disorders; the therapist usually meets with the patient weekly to deal with the patient's crises or stresses

Overview

Since the beginning of the twentieth century, there has been a growing concern about mental health. Studies have indicated that approximately one out of every five persons in the United States will at some time or another experience a psychological disorder severe enough to warrant professional help. Given the magnitude of this problem, the question emerges as to who will provide the kind and amount of treatment needed for this large number of individuals.

Mental health practitioners have emerged from different fields of endeavor. The field of medicine produced psychiatrists; the field of psychology produced clinical psychologists and counseling psychologists; and the field of social work produced psychiatric social workers. In some states, such as California, legislation created special mental health practitioners called marriage, family, and child counselors to

fulfill the needs that were not met by these large professional groups. This article will look at the types of mental health practitioners and describe their professional preparation, their general activity, and their special competencies.

Psychiatrists are those individuals who have completed four years of college and four years of medical school, including one year of internship. After completion, they continue their studies in a residency in psychiatry for approximately three years and learn the skills of a practicing psychiatrist. This is generally done in a mental hospital or clinic, under the supervision of other psychiatrists. Upon completion, they may choose to take an examination which will award them the status of being certified. This status recognizes that a psychiatrist has demonstrated a level of competence that meets professional standards.

As a physician, the psychiatrist can perform all the medical functions that any physician can perform. In terms of the mental health setting, this means that the psychiatrist's activities can involve the administration of different types of drugs that are designed to alter the way a patient feels, thinks, or behaves. The psychiatrist conducts psychotherapy and is concerned about any physical conditions which might make the patient's psychological disposition more serious. The psychiatrist may use other biological treatments, such as electroshock therapy, in the treatment of severe depression and is qualified to supervise the care of patients requiring long-term hospitalization.

The clinical psychologist emerges from the tradition of psychology rather than that of medicine, with a background in theories of behavior and the ways in which behavior may be changed. After completing four years of undergraduate study, usually in psychology but not necessarily so, the student studies two more years to obtain a master's degree in psychology and complete a master's thesis, which provides evidence of research capabilities. This is followed by three more years working toward a Ph.D. degree and the completion of an internship in a mental health setting. After completion of these academic requirements, a psychologist is eligible to take the state licensing examination, which usually requires an oral and written test. In some states, such as California, the psychologist is required to complete an additional year of supervised experience after receiving a Ph.D. degree before becoming eligible for the licensing examination. After passing the examination for licensing, the psychologist is then able to offer services to the public for a fee. Many clinical psychologists choose to go into private practice, that is, to provide services to private patients in their own offices. About 23 percent of all psychologists in the United States list private practice as their primary setting of employment. Other clinical psychologists work in settings such as hospitals, mental health clinics, university counseling centers, or other human service agencies.

After five years of clinical experience, the psychologist may apply for certification by the American Psychological Association. Obtaining certification requires passing written and oral tests as well as an on-site peer examination of clinical skills. Those who succeed are awarded the title of Diplomate in Clinical Psychology. This same award is given in other areas, such as counseling psychology, school psychology, industrial and organizational psychology, and neuropsychol-

ogy. Board certification clarifies for the general public that the psychologist has demonstrated better-than-average clinical skills and is recognized as such by his or her professional peers. Fewer than 10 percent of all clinical psychologists have been awarded the status of diplomate. This is a useful guide, therefore, for persons who are uncertain about who to see for therapy or assistance. Most telephone directories will designate the diplomate status of individuals, since the American Psychological Association requires that they identify themselves as such.

The counseling psychologist, much like the clinical psychologist, is required to obtain a Ph.D. degree and complete an internship in counseling psychology. Counseling psychologists work in the mental health profession by providing services to those individuals, or couples, who are under stress or crisis but who are continuing to be functional. These are individuals who have functioned well in their lives but are meeting particularly difficult situations and require professional help to adjust to or overcome the stresses of the moment. These situations could involve loss of job, marital conflict, divorce, separation, parent-child or other family conflicts, prolonged physical illnesses, or academic difficulties of high school and college students. Counseling psychologists may either be in private practice or be employed by a university counseling center, where they provide services exclusively to college students.

The fourth type of mental health worker is the psychiatric social worker. This person completes four years of undergraduate study in the social or behavioral sciences, then completes two additional years of study in a school of social work. Social workers may choose different areas of specialty; the mental health worker usually concentrates in psychiatric social work. This involves recognizing the social environment of the patient and altering it in ways that will reduce stress and help maintain the gains that the patient may have achieved in treatment. The social worker becomes involved with issues such as vocational placements, career choice, and family stresses and is the link between the patient and the outside world. Social workers who are licensed may have their own private practices and may offer counseling and psychotherapy as a form of treatment.

Applications

Surveys conducted by the American Psychological Association indicate that clinical psychologists spend most of their professional time providing therapy, diagnosis and assessment, and teaching and administration. These categories constitute approximately 70 percent of their daily activity. Additional activities involve research and consultation with other agencies or professionals. Forty percent of their daily activity, however, is devoted to providing direct clinical services to patients either through psychotherapy or psychological testing.

Almost all practicing clinical psychologists engage in some type of diagnosis or assessment. These assessments usually involve the administration of psychological tests, which include intelligence testing, vocational testing, personality tests, attitude tests, and behavioral repertoires. The purpose of the testing is to assess the patient's current status, to determine any disabling conditions, to assess the patient's psychological strengths that can be utilized in therapy, and to determine

treatment recommendations that are specific to the particular problem the patient is presenting. Usually these results are discussed with the patient, and a plan of treatment or therapy is recommended by the psychologist and agreed upon by the patient.

Since there are more than two hundred forms of psychotherapy or behavioral interventions, it is the responsibility of the psychologist to determine which of these procedures is best for the patient, taking into consideration the patient's age, physical status, psychological and emotional condition, and the length of time the disorder has been present. Psychologists should have a good knowledge of the research literature, which would tell them which of these many therapeutic approaches is best for the particular clients with whom they are working at the time.

In the course of private clinical work, the clinical psychologist is likely to meet a variety of different types of cases. These clients may be referred for treatment by other mental health workers, hospitals, insurance plans, ministers, or, very often, by word-of-mouth recommendation from prior patients.

Clients vary as to the severity of their disorders. Some are very seriously disturbed, such as schizophrenic adults who are not receiving treatment in the community and are homeless. They often require hospitalization which provides a complete plan of treatment. Clients with drug or alcohol problems who have had long-standing difficulties with these substances may also require partial hospitalization. The clinical psychologist often acts as the principal or cooperating therapist who plans and participates in the treatment program. Since many clinical psychologists have hospital privileges that allow them to admit their patients to a hospital facility, this procedure is utilized with severely disturbed persons who are a danger to themselves or to others.

Those psychologists who work principally in private practice tend to see clients who have problems adjusting but who do not require hospitalization. These clients often experience excessive symptoms of anxiety, depression, or intrusive thoughts that affect their daily life. They seek therapy for the reduction of these symptoms so that their daily living can be more enjoyable. Other clients seek help in relationships with others, in solving marital, parent-child, employee-supervisor, or sexual conflicts. The clinical psychologist in private practice meets the needs of these clients by providing the best means of resolving these conflicts.

Because psychologists deal with human behavior, they are often involved in many other facets of human activity that require their expertise. For example, psychologists are called upon to testify in court, on questions of sanity, in custody cases, and, occasionally, as expert witnesses in criminal cases. Other psychologists are involved in sports psychology, helping athletes to develop the best psychological and emotional conditions for maximum performance. Still others work in the area of neuropsychology, which deals with patients who have experienced head injuries. Psychologists are asked to assess the extent of the injury and to find those areas that could be used to help the patient recover lost skills. Other psychologists specialize in the treatment of children who have been sexually or physically abused, in drug or alcohol counseling, in working in prisons with juvenile delinquents, or in working with patients who have old-age disorders.

Some psychologists are involved in full-time or part-time teaching at a university. These clinical psychologists not only continue their own clinical practice but also help prepare undergraduate and graduate students through direct classroom instruction or through supervision of their intern or field experiences.

Perspective and Prospects

The field of psychology that deals mainly with emotional and psychological adjustment is called clinical psychology. This field began to take root during World War I, when psychologists were asked to screen military recruits for emotional problems and to assess intellectual abilities so that recruits could be placed in various military positions. During World War II, clinical psychologists assumed an even greater role by developing psychological tests that were used in the selection of undercover agents. They were also asked to provide psychotherapy for soldiers who had emotional or neurological disorders.

Following World War II, clinical psychologists became heavily involved in the development and construction of psychological tests to measure intelligence, interest, personality, and brain dysfunction. Psychologists also became more involved in providing psychotherapy. Today, more psychologists spend their time providing psychotherapy than performing any other single activity.

Clinical psychology today regards itself as an independent profession, separate from the field of psychiatry, and sees itself rooted in the discipline of general psychology with the added clinical skills that make its practitioners uniquely capable of providing services to the general public. It is likely that clinical psychologists will continue to move in the direction of independent practice, focusing on new areas such as behavioral medicine, neuropsychology, and forensic psychology.

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Gerald Sperrazzo

See also:

Analytical Psychotherapy; Aversion, Implosion, and Systematic Desensitization Therapies; Behavioral Assessment and Personality Rating Scales; Behavioral Family Therapy; Child and Adolescent Psychiatry; Cognitive Behavior Therapy; Cognitive Therapy; Community Psychology; Geriatric Psychiatry; Gestalt Therapy; Group Therapy; Modeling Therapies; Music, Dance, and Theater Therapy; Operant Conditioning Therapies; Person-Centered Therapy; Play Therapy; Psychiatry; Psychoactive Drug Therapy; Psychoanalysis; Psychotherapy: Children; Psychotherapy: Effectiveness; Psychotherapy: Goals and Techniques; Psychotherapy: Historical Approaches to Treatment; Rational-Emotive Therapy; Reality Therapy; Strategic Family Therapy; Transactional Analysis.

Mental Retardation

Type of psychology: Psychopathology
Fields of study: Cognitive processes; organic disorders

Mental retardation involves significant subaverage intellectual development and deficient adaptive behavior accompanied by physical abnormalities.

Principal terms

EDUCABLE MENTALLY RETARDED (EMR): individuals with mild-to-moderate retardation; they can be educated with some modifications of the regular education program and can achieve a minimal level of success

IDIOT: an expression which was formerly used to describe a person with profound mental retardation; such an individual requires custodial care

INBORN METABOLIC DISORDER: an abnormality caused by a gene mutation which interferes with normal metabolism and often results in mental retardation

MENTAL HANDICAP: the condition of an individual classified as "educable mentally retarded"

MENTAL IMPAIRMENT: the condition of an individual classified as "trainable mentally retarded"

NEURAL TUBE DEFECTS: birth defects resulting from the failure of the embryonic neural tube to close; usually results in some degree of mental retardation

TRAINABLE MENTALLY RETARDED (TMR): individuals with moderate-to-severe retardation; only low levels of achievement may be reached by such persons

Causes and Symptoms

Mental retardation is a condition in which a person demonstrates significant subaverage development of intellectual function, along with poor adaptive behavior. Diagnosis can be made fairly easily at birth if physical abnormalities also accompany mental retardation. An infant with mild mental retardation, however, may not be diagnosed until problems arise in school. Estimates of the prevalence of mental retardation vary from 1 to 3 percent of the world's total population.

Diagnosis of mental retardation takes into consideration three factors: subaverage intellectual function, deficiency in adaptive behavior, and early-age onset (before the age of eighteen). Intellectual function is a measure of one's intelligence quotient (IQ). Four levels of retardation based on IQ are described by the American Psychiatric Association. An individual with an IQ between 50 and 70 is considered mildly retarded, one with an IQ between 35 and 49 is moderately retarded, one with an IQ between 21 and 34 is severely retarded, and an individual with an IQ of less than 20 is termed profoundly retarded.

A person's level of adaptive behavior is not as easily determined as an IQ, but it is generally defined as the ability to meet social expectations in the individual's own environment. Assessment is based on development of certain skills: sensory-motor, speech and language, self-help, and socialization skills. Tests have been

developed to aid in these measurements.

To identify possible mental retardation in infants, the use of language milestones is a helpful tool. For example, parents and pediatricians will observe whether children begin to smile, coo, babble, and use words during the appropriate age ranges. Once children reach school age, poor school achievement may identify those who are mentally impaired. Psychometric tests appropriate to the age of the children will help with diagnosis.

Classification of the degree of mental retardation is never absolutely clear, and dividing lines are often arbitrary. There has been debate about the value of classifying or labeling persons in categories of mental deficiency. On the one hand, it is important for professionals to understand the amount of deficiency and to determine what kind of education and treatment would be appropriate and helpful to each individual. On the other hand, such classification can lead to low self-esteem, rejection by peers, and low expectations from teachers and parents.

There has been a marked change in the terminology used in classifying mental retardation from the early days of its study. In the early twentieth century, the terms used for moderate, severe, and profound retardation were “moron,” “imbecile,” and “idiot.” In Great Britain, the term “feeble-minded” was used to indicate moderate retardation. These terms are no longer used by professionals working with the mentally retarded. “Idiot” was the classification given to the most profoundly retarded until the middle of the twentieth century. Historically, the word has changed in meaning, from William Shakespeare’s day when the court jester was called an idiot, to an indication of psychosis, and later to define the lowest grade of mental deficiency. The term “idiocy” has been replaced with the expression “profound mental retardation.”

Determining the cause of mental retardation is much more difficult than might be expected. More than a thousand different disorders that can cause mental retardation have been reported. Some cases seem to be entirely hereditary, others to be caused by environmental stress, and others the result of a combination of the two. In a large number of cases, however, the cause cannot be established. The mildly retarded make up the largest proportion of the mentally retarded population, and their condition seems to be a recessive genetic trait with no accompanying physical abnormalities. From a medical standpoint, mental retardation is considered to be a result of disease or biological defect and is classified according to its cause. Some of these causes are infections, poisons, environmental trauma, metabolic and nutritional abnormalities, and brain malformation.

Infections are especially harmful to brain development if they occur in the first trimester of pregnancy. Rubella is a viral infection that often results in mental retardation. Syphilis is a sexually transmitted disease which affects adults and infants born to them, resulting in progressive mental degeneration.

Poisons such as lead, mercury, and alcohol have a very damaging effect on the developing brain. Lead-based paints linger in old houses and cause poisoning in children. Children tend to eat paint and plaster chips or put them in their mouths, causing possible mental retardation, cerebral palsy, and convulsive and behavioral disorders.

Traumatic environmental effects that can cause mental retardation include prenatal exposure to X rays, lack of oxygen to the brain, or a mother's fall during pregnancy. During birth itself, the use of forceps can cause brain damage, and labor that is too brief or too long can cause mental impairment. After the birth process, head trauma or high temperature can affect brain function.

Poor nutrition and inborn metabolic disorders may cause defective mental development because vital body processes are hindered. One of these conditions, for which every newborn is tested, is phenylketonuria (PKU), in which the body cannot process the amino acid phenylalanine. If PKU is detected in infancy, subsequent mental retardation can be avoided by placing the child on a carefully controlled diet, thus preventing buildup of toxic compounds that would be harmful to the brain.

The failure of the neural tube to close in the early development of an embryo may result in anencephaly (an incomplete brain or none at all), hydrocephalus (an excessive amount of cerebrospinal fluid), or spina bifida (an incomplete vertebra, which leaves the spinal cord exposed). Anencephalic infants will live only a few hours. About half of those with other neural tube disorders will survive, usually with some degree of mental retardation. Research has shown that if a mother's diet has sufficient quantities of folic acid, neural tube closure disorders will be rare or nonexistent.

Microcephaly is another physical defect associated with mental retardation. In this condition, the head is abnormally small because of inadequate brain growth. Microcephaly may be inherited or caused by maternal infection, drugs, irradiation, or lack of oxygen at birth.

Abnormal chromosome numbers are not uncommon in developing embryos and will cause spontaneous abortions in most cases. Those babies that survive usually demonstrate varying degrees of mental retardation, and incidence increases with maternal age. A well-known example of a chromosome disorder is Down syndrome (formerly called mongolism), in which there is an extra copy of the twenty-first chromosome. Gene products caused by the extra chromosome cause mental retardation and other physical problems. Other well-studied chromosomal abnormalities involve the sex chromosomes. Both males and females may be born with too many or too few sex chromosomes, which often results in mental retardation.

Mild retardation with no other noticeable problems has been found to run in certain families. It occurs more often in the lower economic strata of society and probably reflects only the lower end of the normal distribution of intelligence in a population. The condition is probably a result of genetic factors interacting with environmental ones. It has been found that culturally deprived children have a lower level of intellectual function because of decreased stimuli as the infant brain develops.

Treatment and Therapy

Diagnosis of the level of mental retardation is important in meeting the needs of the intellectually handicapped. It can open the way for effective measures to be

taken to help these persons achieve the highest quality of life possible for them.

Individuals with an IQ of 50 to 70 have mild-to-moderate retardation and are classified as "educable mentally retarded" (EMR). They can profit from the regular education program when it is somewhat modified. The general purpose of all education is to allow for the development of knowledge, to provide a basis for vocational competence, and to allow opportunity for self-realization. The EMR can achieve some success in academic subjects, make satisfactory social adjustment, and achieve minimal occupational adequacy if given proper training. In Great Britain, these individuals are referred to as "educationally subnormal" (ESN).

Persons with moderate-to-severe retardation generally have IQs between 21 and 49 and are classified as "trainable mentally retarded" (TMR). These individuals are not educable in the traditional sense, but many can be trained in self-help skills, socialization into the family, and some degree of economic independence with supervision. They need a developmental curriculum which promotes personal development, independence, and social skills.

The profoundly retarded (formerly called idiots) are classified as "totally dependent" and have IQs of 20 or less. They cannot be trained to care for themselves, to socialize, or to be independent to any degree. They will need almost complete care and supervision throughout life. They may learn to understand a few simple commands, but they will only be able to speak a few words. Meaningful speech is not characteristic of this group.

EMR individuals need a modified curriculum, along with appropriately qualified and experienced teachers. Activities should include some within their special class and some in which they interact with students of other classes. The amount of time spent in regular classes and in special classes should be determined by individual needs in order to achieve the goals and objectives planned for each. Individual development must be the primary concern.

For TMR individuals, the differences will be in the areas of emphasis, level of attainment projected, and methods used. The programs should consist of small classes that may be held within the public schools or outside with the help of parents and other concerned groups. Persons trained in special education are needed to guide the physical, social, and emotional development experiences effectively.

A systematic approach in special education has proven to be the best teaching method to make clear to students what behaviors will result in the successful completion of goals. This approach has been designed so that children work with only one concept at a time. There are appropriate remedies planned for misconceptions along the way. Progress is charted for academic skills, home-living skills, and prevocational training. Decisions on the type of academic training appropriate for a TMR individual is not based on classification or labels, but on demonstrated ability.

One of the most important features of successful special education is the involvement of parents. Parents faced with rearing a retarded child may find the task overwhelming and have a great need of caring support and information about their child and the implications for their future. Parental involvement gives the

parents the opportunity to learn by observing how the professionals facilitate effective learning experiences for their children at school.

Counselors help parents identify problems and implement plans of action. They can also help them determine whether goals are being reached. Counselors must know about the community resources that are available to families. They can help parents find emotional reconciliation with the problems presented by their special children. It is important for parents to be able to accept the child's limitations. They should not lavish special or different treatment on the retarded child, but rather treat this child like the other children.

Placing a child outside the home is indicated only when educational, behavioral, or medical controls are needed which cannot be provided in the home. Physicians and social workers should be able to do some counseling to supplement that of the trained counselors. Those who offer counseling should have basic counseling skills and relevant knowledge about the mentally retarded individual and the family.

EMR individuals will usually marry, have children, and often become self-supporting. The TMR will live in an institution or at home or in foster homes for their entire lives. They will probably never become self-sufficient. The presence of a TMR child has a great impact on families and may weaken family closeness. It creates additional expenses and limits family activities. Counseling for these families is very important.

Sheltered employment provides highly controlled working conditions, helping the mentally retarded to become contributing members of society. This arrangement benefits the individual, the family, and society as the individual experiences the satisfaction and dignity of work. The mildly retarded may need only a short period of time in the sheltered workshop. The greater the degree of mental retardation, the more likely shelter will be required on a permanent basis. For the workshop to be successful, those in charge of it must consider both the personal development of the handicapped worker and the business production and profit of the workshop. Failure to consider the business success of these ventures has led to failures of the programs.

There has been a trend toward deinstitutionalizing the mentally retarded, to relocate as many residents as possible into appropriate community homes. Success will depend on a suitable match between the individual and the type of home provided. This approach is most effective for the mentally retarded if the staff of a facility is well trained and there is a fair amount of satisfactory interaction between staff and residents. It is important that residents not be ignored, and they must be monitored for proper evaluation at each step along the way. Top priority must be given to preparation of the staff to work closely with the mentally impaired and handicapped.

In the past, there was no way to know before a child's birth if there would be abnormalities. With advances in technology, however, a variety of prenatal tests can be done and many fetal abnormalities can be detected. Genetic counseling is important for persons who have these tests conducted. Some may have previously had a retarded child, or have retarded family members. Others may have something in their backgrounds that would indicate a higher-than-average risk for physical

and/or mental abnormalities. Some come for testing before a child is conceived, others do not come until afterward. Tests can be done on the fetal blood and tissues that will reveal chromosomal abnormalities or inborn metabolic errors.

Many parents do not seek testing or genetic counseling because of the stress and anxiety that may result. Though most prenatal tests result in normal findings, if problems are indicated the parents are faced with what may be a difficult decision: whether to continue the pregnancy. It is often impossible to predict the extent of an abnormality, and weighing the sanctity of life in relation to the quality of life may present an ethical and religious dilemma. Others prefer to know what problems lie ahead and what their options are.

Perspective and Prospects

Down through history, the mentally retarded were first ignored, and then subjected to ridicule. The first attempts to educate the mentally retarded were initiated in France in the mid-nineteenth century. Shortly afterward, institutions for them began to spring up in Europe and the United States. These were often in remote rural areas, separated from the communities nearby, and were usually ill-equipped and understaffed. The institutions were quite regimented and harsh discipline was kept. Meaningful interactions usually did not occur between the patients and the staff.

The medical approach of the institutions was to treat the outward condition of the mentally retarded and ignore them as people. No concern for their social and emotional needs was shown. There were no provisions for children to play, nor was there concern for the needs of the family of those with mental handicaps.

Not until the end of the nineteenth century were the first classes set up in some U.S. public schools for education of the mentally retarded. The first half of the twentieth century brought about the expansion of the public school programs for individuals with both mild and moderate mental retardation. After World War II, perhaps in response to the slaughter of mentally handicapped persons in Nazi Germany, strong efforts were made to provide educational, medical, and recreational services for the mentally retarded.

Groundbreaking research in the 1950's led to the normalization of society's attitude about the mentally retarded in the United States. Plans to help these individuals live as normal a life as possible were made. The National Association for Retarded Citizens was founded in 1950 and had a very strong influence on public opinion. In 1961, President John F. Kennedy appointed the Panel on Mental Retardation and instructed it to prepare a plan for the nation, to help meet the complex problems of the mentally retarded. The panel presented ninety recommendations in the areas of research, prevention, medical services, education, law, and local and national organization. Further presidential commissions on the topic were appointed and have had far-reaching effects for the well-being of the mentally retarded.

A "Declaration of the Rights of Mentally Retarded Persons" was adopted by the General Assembly of the United Nations in 1971, and the Education for All Handicapped Children Act was passed in the United States in 1975, providing for

the development of educational programs appropriate for all handicapped children and youth. These pieces of legislation were milestones in the struggle to improve learning opportunities for the mentally retarded.

Changes continue to take place in attitudes toward greater integration of the retarded into schools and the community, leading to significant improvements. The role of the family has increased in emphasis, for it has often been the families themselves that have worked to change old, outdated policies. The cooperation of the family is very important in improving the social and intellectual development of the mentally retarded child. Because so many new and innovative techniques have been used, it is very important that programs be evaluated and compared to one another to determine which methods provide the best training and education for the mentally retarded.

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Katherine H. Houp

See also:

Brain Disorders; Child and Adolescent Psychiatry; Down Syndrome; Learning Disabilities.

Midlife Crises

Type of psychology: Developmental psychology
Fields of study: Adulthood; coping

Midlife crisis describes the transition from early adulthood to middle age. It can be a stressful time of reevaluation, leading to both external and internal changes in a person's life.

Principal terms

CRISIS: a period of alienation and confusion during which one feels overwhelmed and dissatisfied with one's life

EMPTY NEST: transitional phase of parenting after the last child leaves the parents' home

GENERATIVITY: the desire to care for and contribute to further generations; desire to leave a legacy

LIFE STRUCTURE: the basic pattern of a person's life at a given time; both influences and is influenced by the person's relationship with the environment

OFF-TIME EVENTS: life events that occur at unexpected or unpredictable times

TRANSITION: a period of change and instability between one stage of development and the next

Overview

The term "midlife crisis" has become a part of the everyday vocabulary of most people and is often mentioned when explaining the cause of a variety of difficult changes during adulthood, ranging from depression to extramarital affairs. Most researchers describe the midlife crisis as a period of alienation, stress, and disequilibrium occurring immediately prior to the individual's entrance into middle age. The typical age reported for the midlife crisis varies depending on the researcher. Some claim that the midlife crisis may begin around age thirty-five and last until age forty, others have identified the late thirties and early forties as the most likely time for crisis, and still others claim that the midlife crisis occurs in the middle to late forties.

The notion of a midlife crisis being a predictable event in people's lives was popularized by Gail Sheehy's *Passages: Predictable Crises of Adult Life* (1976). Sheehy referred to the ages thirty-five to forty-five as the "deadline decade," emphasizing that this is the period during adulthood when people tend to start panicking about running out of time to accomplish the goals and dreams they established in their youth. The midlife crisis described by Sheehy is similar to Daniel Levinson and his coauthors' approach to adult development, outlined in their book *The Seasons of a Man's Life* (1978). Levinson's theory describes the changing "life structures" and transitional periods throughout an adult's development from entering early adulthood to entering late adulthood. During the midlife transition (ages forty to forty-five), Levinson claims that virtually all men experi-

ence a stressful period of crisis. Both Sheehy and Levinson, as well as other authors, emphasize the marked shift in time perspective that occurs during the transition into middle adulthood. The authors claim that this is the first time in people's lives when they fully realize that time is finite and that eventual death is a personal reality for them. Facing one's own mortality leads to considerable existential questioning about the meaning of life, one's identity, and one's role in life, somewhat similar to the questions that are first faced during adolescence.

The main reason that this growing awareness of mortality leads to a crisis is that people at this stage reevaluate their lives and tend to question virtually every major value and belief that they have held. Adults may reevaluate their previous decisions regarding career and marriage, question their satisfaction with these decisions, and subsequently make major changes in their lives. All this questioning and change can precipitate a crisis in people's lives because they often do not have sufficient strategies to cope with the changes and are unsure of who they are and what they stand for.

According to Levinson, there are three major psychological tasks that people in midlife must face. First, they must reappraise their past so that they can make the best use of their remaining time. During the process of reappraisal, people often come to realize that many of their assumptions about the world and their lives were idealistic illusions, and they then develop more realistic, balanced views. Another task is to modify their "life structure" by making both external and internal changes. External changes may include changes in family structure (possibly divorce and remarriage) or changes in career structure. Changes in personal outlook, values, and goals represent internal changes that occur during the midlife transition. Finally, the person must integrate into their personality those aspects of themselves that have previously been ignored or neglected. In particular, the polarities or opposites of being young versus old, destructive versus creative, masculine versus feminine, and attached versus separate must be integrated into the personality to form a broader, more balanced perspective.

Levinson's view that people inevitably experience a midlife crisis around age forty is shared by some experts in developmental psychology but is firmly disputed by others. Although most theorists agree that there is a transition between young and middle adulthood, many challenge the notion that the transition is experienced as a "crisis." Researchers such as Bernice Neugarten claim that life events, not birthdays, are the basis for crises. In particular, unpredictable or "off-time" events are more likely to bring on a crisis than events that are predictable and occur at the expected time. If people are prepared for a specific change during adulthood, such as having children leave home, then Neugarten suggests that the change, though stressful, does not set off a crisis.

The individual's personal approach to dealing with changes, as well as his or her attitude toward the change, influences whether the change will lead to a crisis. An event is more likely to be experienced as stressful if it is perceived as a negative event over which the person has no control. On the other hand, if the event is viewed as a challenge, the person is more likely to feel energized and optimistic about coping with any ensuing changes. Other factors that can influence how

individuals deal with important life events are physical health, personality style (flexible versus inflexible, resilient versus vulnerable), their personal history of coping with previous stressful events, and the degree of social support they have from family, friends, coworkers, and community.

Applications

Neugarten suggests that important life events serve to mark the passage of time through one's lifetime. There are several such events that often occur during the transition to middle adulthood that can contribute to a midlife crisis. One of the main changes faced during this period are subtle but unmistakable signs of physical aging. Gray hairs become more abundant, wrinkles around the eyes and the rest of the face become more pronounced, and parents may find that their adolescent children can now regularly beat them in basketball, races, and other tests of athletic prowess in which the parents once were undisputed champions.

In addition to these physical changes, women entering midlife must face the eventual loss of their ability to have children with knowledge that the menopause is rapidly approaching. Even for women who do not wish to have children (or more children), the loss of choice on the matter can be disturbing. Men do not face the same loss of reproductive functioning, but they often do start to develop doubts about their "sex appeal"; consequently, a man may seek an affair with a younger woman in order to reaffirm his sense of sexual desirability.

The midlife transition is also a time when people's perspectives toward their careers often change. People begin to realize that their choice of career options has narrowed substantially. They also may have found that they have reached a plateau in their current career, as the important tasks and opportunities are frequently assigned to younger, more motivated employees. Finally, the limited time left before retirement may lead to a sense of disappointment when the middle-aged person realizes that he or she has not attained all the goals and dreams of youth.

Significant changes can also occur in the family during the midlife transition. Adults in their late thirties to early forties often have adolescent children who are most likely going through identity crises of their own. Two or more corresponding but separate crises occurring in the same family can interfere with communication and family harmony. Another change associated with having children is facing the "empty nest" when the grown children begin to leave home for college or to start families of their own. The departure of children from the home often involves a significant role loss for the mother and possibly a lost opportunity for a close relationship for the father. In addition, just as the children are leaving home, adults in midlife may suddenly find themselves saddled with the stress and responsibility of caring for frail, elderly parents. The caregivers (typically middle-age women) faced with the burden of caring for a dependent parent are referred to as the "sandwich" generation, because they are caught between the competing demands of their ailing parent, grown children, spouse, and their own desire finally to address their own personal needs and dreams. The increasing pressures at this time in life when people often expect to have more time to themselves can create a tremendous amount of stress.

Marital dissatisfaction during midlife is at an all-time high for many couples. The responsibilities of careers and rearing children keep many married couples busy and preoccupied during early adulthood. Once the children leave home and careers plateau, however, couples tend to take a more thorough look at their relationship and often wonder whether they want to maintain it. Not surprisingly, many divorces occur at this time in life.

Given all the important and difficult changes occurring during midlife, it should not be surprising that individuals' lives and perspectives are often qualitatively different after the midlife transition. According to Erik Erikson, people in middle adulthood struggle with opposing tendencies toward generativity and stagnation. Generativity refers to a desire to renew oneself through contributing to future generations. Ways that people typically contribute include rearing their own children, teaching, coaching, serving as a mentor, or making an artistic or creative contribution to society. People who are successful at generativity during this period are more likely to come through the midlife crisis with a stronger sense of identity and greater life satisfaction. On the other hand, those who stagnate at this stage and become self-absorbed tend to become increasingly narrow and rigid in perspective and bitter in attitude.

Another psychological change during this period has to do with the tendency for adults to exhibit characteristics typically associated with the opposite sex. Men who have primarily been aggressive and active in their careers may become more reflective, nurturing, and interested in building closer family relationships with their children and spouse. In contrast, women tend to become more assertive, self-confident, and oriented toward personal achievements at midlife, particularly once the responsibility of child rearing diminishes.

Perspective and Prospects

The idea of the midlife crisis can be traced back to the writings of Carl Jung in which he portrayed the second half of life as a time for balance and reflection. Jung claimed that the passing of youth at middle age is marked by psychological changes in the individual. Prominent aspects of the personality become less important and are even gradually replaced by opposite personality traits. In addition, Jung held that one of the primary changes of this period was a greater emphasis on exploration of one's inner self and a search for meaning in one's life. These changes are thought to pave the way for greater acceptance of one's eventual death.

Although Jung's work suggested that an important change occurred at midlife, the London psychoanalyst Elliott Jaques is credited with being the first author to use the term "midlife crisis." His article "Death and the Mid-Life Crisis" (1965) was based on his study of the lives of composers, writers, and artists. Jaques found that there was a marked shift in the themes and styles of these creators from the more straightforward and descriptive work of their early adult years to a much more tragic and philosophical approach during their middle-age years. Later in life, the themes of these writers and artists became more serene and calm. Jaques proposed that the shift in style at midlife was based on the individual's confronta-

tion with his or her own mortality. Similarly, the eventual acceptance of their mortality led to a greater sense of peace in their later years, which was reflected in their work.

The writings of Jung and Jaques were significant in the field of psychology because they heralded a broader focus in the understanding of human development. Initially, the focus of developmental psychology was based solely on the physical, cognitive, and psychological changes during childhood and adolescence. It was assumed that people were finished with important development changes by puberty and that no further changes of significance occurred again in people's lives until the decline in functioning right before death. Regardless of whether one thinks of midlife as a transition or a crisis, the study of midlife changes has contributed much to the understanding of ongoing development during adulthood.

Future work in the area of midlife crisis is likely to lead to a greater understanding of the varied ways different people have of approaching and coping with stressors and changes in midlife. In particular, future research will probably focus on cultural differences in the experience of midlife as well as gender differences, as society's differential expectations and demands regarding gender continue to shift. Finally, changes in the expected age and duration of midlife crises may occur as the average human life span changes and the average age of the population as a whole continues to increase.

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Levinson, Daniel J., et al. *The Seasons of a Man's Life*. New York: Alfred A. Knopf, 1978. Summarizes Levinson's influential theoretical approach to adult development, based on in-depth interviews with forty men, ages thirty-five to forty-five. He describes the life cycle from early adulthood through middle adulthood, pointing out the psychological tasks of each stage and transition. Case-study examples are included throughout. Most of the text can be understood without an extensive knowledge of technical terminology or psychological theory.

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Stephanie Stein

See also:

Anxiety Disorders; Couples Therapy; Depression; Divorce and Separation: Adult Issues; Identity Crises; Jealousy; Stress; Stress: Coping Strategies; Stress: Prediction and Control.

Modeling Therapies

Type of psychology: Psychotherapy
Fields of study: Behavioral therapies; cognitive therapies

Modeling therapies are cognitive behavioral therapy techniques that are based on the principles of learning by observing; they are based on the idea that people can benefit from observing the behaviors of other people. These therapies have been applied successfully to a wide range of problems.

Principal terms

COPING MODEL: a model who is somewhat of a novice but who copes with the situation

COVERT MODELING: a modeling technique in which clients use their imaginations to visualize a given situation

LIVE MODELING: a modeling technique that involves observing a person directly, in the flesh

MASTERY MODEL: an expert who is very adept at the target behavior

SELF-AS-A-MODEL: a modeling technique in which clients watch themselves on videotape and in which the film is edited to include only appropriate examples of the behavior

SELF-MODELING: a modeling technique in which clients observe themselves on videotape and in which the film includes all behaviors, both appropriate and inappropriate

SYMBOLIC MODELING: a modeling technique in which clients observe a person indirectly, such as in films, on television, or through reading

TARGET BEHAVIOR: the behavior which the client desires to change through therapy

Overview

Much of what people know and how people behave they have learned through observing other people. From the child who learns how to tie shoelaces by having an adult demonstrate how to do it to the medical student who learns how to perform complicated surgery by watching expert physicians, all people learn from observing the behaviors of those around them. This process of learning has been given many different names, including imitation, copying, mimicry, vicarious learning, observational learning, and modeling.

Often, people are aware when this process of learning by observing others is occurring. That is, they are consciously paying attention to the behavior of another person in order to learn a new behavior. For example, when people first learn to ski, they will closely watch someone who already knows how to do it. In this way, they will learn how they are supposed to behave and what to do on the skis. This process of learning by observation most often occurs, however, without the learner even being aware of it. The child who watches a parent or other adult perform some task and then tries to do it like the adult is not usually thinking about wanting to

learn that new behavior. For example, the young boy who tries to shave just like his father is not trying consciously to learn how to shave; he is simply imitating the adult. Yet the child is learning a new behavior through this observing and practicing process. So pervasive is this learning process in everyone's life that it has been estimated by some that at least 70 percent of human behavior can be accounted for by this learning process.

The principles behind modeling are used throughout society. In education, learning by observation is an essential aspect of all teaching. For example, an instructor could not teach a foreign language without first demonstrating the words for the student to learn. In industry and business, modeling techniques are used to train employees in the skills necessary to function in their jobs. In advertising, modeling is the primary basis by which consumers are manipulated to buy certain products. Consumers learn through advertisements that by driving certain automobiles, they will become popular. These are but a few examples of how observational learning, or modeling, occurs on a daily basis.

While the process of learning by observation is pervasive and has occurred throughout human history, the scientific exploration of the process and subsequent therapeutic application began with Albert Bandura's work in the 1960's. During this time, Bandura was conducting experiments with children and their reaction to "Bobo" dolls, which are large stuffed dolls often used for punching and kicking. In these now-famous studies, it was found that children would act in a more aggressive manner after watching other children punching and kicking the Bobo doll. In subsequent studies, Bandura and associates demonstrated the same learning process in children observing violent television shows. Children who observed aggressive television shows would subsequently behave with greater aggression.

Bandura's research did much to stimulate interest in the process of learning through observation and helped inspire the development of therapy techniques based on modeling. While there are many different types of modeling therapies, they are all based on the principle that learning will occur as a result of observation.

Modeling therapies are used primarily in cognitive behavioral and other behavioral therapy approaches. The types of modeling therapies that exist include symbolic modeling, live modeling, covert modeling, and cognitive modeling. Symbolic modeling involves the client observing some indirect representation of the behavior being demonstrated. This might mean watching television or a motion picture, reading a book, or being told about the behavior. In contrast to symbolic modeling, live modeling involves the client directly observing the behavior that is being demonstrated by another person. Typically, this will be the therapist demonstrating the desired behavior. Covert modeling involves the client being directed by the therapist to imagine himself or herself or someone similar to the client demonstrating the desired behavior. In cognitive modeling, therapists tell clients what to say to themselves when they are performing a certain task.

With the advent of video technology, other forms of modeling have become possible and readily accessible. Two approaches that use this new technology are self-modeling and the self-as-a-model technique. In both of these approaches, rather than observing another person perform a target behavior, clients serve as

their own models. The client is videotaped demonstrating the target behavior, and this videotape is then used by the client either to gain or increase mastery of the target behavior or to eliminate a particular behavior. In self-modeling, clients watch all the examples of the behavior, both appropriate and inappropriate. In self-as-a-model, concurrently developed by Ray Hosford and Peter Dowrick, clients also observe their own behavior; however, in this approach, only appropriate examples of the behavior are left on the videotape, while the inappropriate examples are deleted.

Applications

Modeling therapies have been used successfully to treat a wide variety of problems. In fact, these techniques have considerable usefulness across the full spectrum of problems that clients present to therapists. They have been used to help clients acquire new skills, strengthen existing skills, eliminate problem behaviors, and decrease fears and phobias.

In examining how the various types of modeling therapies would be applied to an actual client, one could look at a case example of a nineteen-year-old male client who lacks assertive behavior when dealing with his coworkers. The first step in helping this client would be to get as much specific information as possible about the behaviors that need to be changed and the situations in which the problem arises. Having gained this information, the therapist would then be ready to implement a therapeutic strategy to help the client become more assertive.

Choosing symbolic modeling, the therapist might show the client films or videotapes of other people demonstrating assertive behavior, or have the client read a book about the topic. After the videotape has been viewed, the client would then have an opportunity to practice the assertive behavior in the presence of the therapist, who will observe and give feedback.

The use of live modeling is very similar to that of symbolic modeling, except that the client would observe the person in the flesh. In the case of the nonassertive client, the therapist and client might act out a possible scene involving the client and the coworkers. The therapist would first play the role of the client and demonstrate assertive behaviors in the situation. Then the therapist and client would switch roles, and the client would try out this new behavior. As with the prior approach, the therapist's role would be to give feedback to the client on the appropriateness of the behavior and, as necessary, repeat the behavior while the client observes. This example presents the primary elements of modeling therapies: observation of the model, practice, feedback, additional modeling, and further practice and feedback.

If covert modeling is chosen, the therapist would direct the client to imagine himself, or someone who is similar, behaving in an assertive manner. Perhaps the therapist would slowly describe a scene in which the client is behaving in an assertive manner with his coworkers. While the therapist is describing the scene, the client would be imagining the scene actually occurring.

With cognitive modeling, the therapist shows the client what to say to himself while performing the assertive behavior. The therapist would first demonstrate the

behavior while speaking aloud the appropriate "self-talk." For example, the therapist would act assertively while saying aloud, "I'm doing fine; I have the right to express my opinions; I'm proud of myself for acting this way." Then the client would perform the same behavior while the therapist gave instructions on what to say aloud. After this, the client would practice the behavior while following the instructions on what self-talk to be using.

Finally, if self-modeling or self-as-a-model is selected, the client would first perform the behavior while being videotaped. The therapist's role would be to help direct this performance to optimize the client's appropriate behavior. With both self-modeling and self-as-a-model, the client would then watch the videotape and imagine himself performing the behavior. (Again, in self-modeling, the videotape would include all demonstrations of the behavior; in self-as-a-model, the videotape would have been edited to include only positive examples of the behavior.)

As shown in this case example, when modeling therapies are used, they are typically only one component of a more comprehensive therapy approach. Therapy will usually consist of many different techniques to help a client create a change in behavior. In the case example, the therapist would probably use, in addition to modeling, relaxation techniques to help reduce the client's anxiety in the situation, cognitive restructuring to facilitate a reduction in the client's negative self-talk, and homework to have the client practice the desired behavior.

While modeling therapies are effective in a variety of situations, there are a number of factors that will influence how well the intervention will work. Some of these factors have to do with the characteristics of the model (the therapist), and some with the characteristics of the observer (the client). For example, observers will learn more from models whom they perceive to be attractive, rewarding, prestigious, competent, powerful, or similar in ethnicity. Further, some observers will learn better from a mastery model, that is, from a person who is very skilled in the target behavior, while others will learn better from a coping model, that is, from a person who is somewhat of a novice at the behavior but who is managing to cope. One factor that affects which model will work best for a given individual is the observer's level of self-confidence.

The previous case example of assertiveness training is only one brief example of how modeling therapies can be used. These therapies are also used to help clients eliminate undesirable behaviors such as angry outbursts, decrease fears such as snake or height phobias, and strengthen existing skills such as public speaking. As people learn much of what they know and do from observational learning, so too can they change their behavior and learn new skills with the help of modeling used in therapy.

Perspective and Prospects

While psychologists, sociologists, and anthropologists have long known about the phenomenon of imitation learning, it was not until the 1960's that scientific investigation into observational learning began in earnest. Albert Bandura's early, pioneering work in this area was influenced by a growing societal concern over the potentially negative impact that television has on children, specifically over the

possible effects of violence on television. From these early investigations, in which Bandura and his associates demonstrated the presence of observational learning of aggressiveness in children, Bandura further elaborated on the theoretical principles behind the phenomenon of observational learning. These writings and work by many other psychologists led to the development of a variety of modeling therapies.

When first developed, modeling techniques were primarily used in behavioral approaches to therapy. The modeling approaches generally involved observation of the model and subsequent practice by the observer; that is, the focus of the modeling therapies was strictly on overt behavior. With the development of cognitive techniques and their subsequent incorporation into the behavioral approaches to therapy, new forms of modeling therapies came into existence. Two of these new approaches were cognitive modeling and covert modeling, in which clients use their thoughts to help create behavior change. As a result of the use of cognitive approaches, the range of modeling therapies increased, as did the range of therapists using modeling therapies.

With increases in video technology, the range of modeling therapies was further expanded, as was their use and effectiveness. The growing availability of videotape equipment has allowed a greater use of self-modeling and self-as-a-model. With the use of video equipment, it became feasible for clients to observe themselves performing a given behavior. These opportunities for self-observation have allowed clients to serve as their own model and, with the assistance of a therapist, make changes in their behavior.

While it is primarily thought of as a cognitive behavioral therapy approach, modeling, it should be noted, is a part of every form of therapy. In many forms of therapy it may not be called modeling, but it occurs nevertheless. In virtually every therapy approach, the therapist demonstrates appropriate behaviors and the client learns from these demonstrations; this is observational learning, or modeling, no matter what it is called by the therapist.

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Mark E. Johnson

See also:

Behavioral Family Therapy; Cognitive Behavior Therapy; Cognitive Therapy; Operant Conditioning Therapies; Psychotherapy: Goals and Techniques.

Music, Dance, and Theater Therapy

Type of psychology: Psychotherapy
Fields of study: Psychodynamic therapies

Music, dance, and theater therapies utilize various media such as movement and creative expression to accomplish the desired therapeutic goals; these therapies reflect a focus on the therapeutic value of artistic experiences and expression.

Principal terms

ADAPTIVE PATTERNS: the behaviors an individual employs to utilize the environment and its demands while satisfying needs

CREATIVITY: a basic component in music, dance, and theater; it involves imagination and expression

DEVELOPMENTAL TASK: the process of learning an age-appropriate or sequential behavior

IMPROVISATION: a performance or construction from whatever material is available without previous preparation

MOVEMENT THERAPY: a means of enabling an individual, through movement, to develop and organize behavioral patterns that satisfy personal needs

Overview

Music, dance, and theater therapies employ a wide range of methods to accomplish the goal of successful psychotherapy. Psychotherapy is a general term for the wide variety of methods psychologists and psychiatrists use to treat behavioral, emotional, or cognitive disorders. Music, dance, and theater therapies are not only helpful in the observation and interpretation of mental and emotional illness but also useful in the treatment process. Many hospitals, clinics, and psychiatrists or therapists include these types of therapy in their programs. They are not limited to hospital and clinical settings, however; they also play important roles in a wide variety of settings, such as community mental health programs, special schools, prisons, rehabilitation centers, nursing homes, and other settings.

Music, dance, and theater therapies share a number of basic characteristics. The therapies are generally designed to encourage expression. Feelings that may be too overwhelming for a person to express verbally can be expressed through movement, music, or the acting of a role. Loneliness, anxiety, and shame are typical of the kinds of feelings that can be expressed effectively through music, dance, or theater therapy. These therapies share a developmental framework. Each therapeutic process can be adapted to start at the patient's physical and emotional level and progress from that point onward.

Music, dance, and theater therapies are physically integrative. Each can involve the body in some way and thus help develop an individual's sense of identity. Each

therapy is inclusive and can deal with either individuals or groups, and with verbal or nonverbal patients in different settings. Each is applicable to different age groups (children, adolescents, adults, the elderly) and to different diagnostic categories, ranging from mild to severe. While music, dance, and theater therapies share these common characteristics, however, they also differ in important respects.

Dance therapy does not use a standard dance form or movement technique. Any genre, from ritual dances to improvisation, may be employed. The reason for such variety lies in the broad spectrum of persons that undergo dance therapy: neurotics, psychotics, schizophrenics, the physically disabled, and geriatric populations can all benefit from different types of dance therapy. Dance therapy may be based on various philosophical models. Three of the most common are the human potential model, the holistic health model, and the medical model. The humanistic and holistic health models have in common the belief that individuals share responsibility for their therapeutic progress and relationships with others. By contrast, the medical model assumes that the therapist is responsible for the treatment and cure.

Dance therapy is not a derivative of any particular verbal psychotherapy. It has its own origin in dance, and certain aspects of both dance and choreography are important. There are basic principles involving the transformation of the motor urge and its expression into a useful, conscious form. The techniques used in dance therapy can allow many different processes to take place. During dance therapy, the use of movement results in a total sensing of submerged states of feeling that can serve to eliminate inappropriate behavior. Bodily integration is another process that can take place in dance therapy. The patient may gain a feeling of how parts of the body are connected and how movement in one part of the body affects the total body. The therapist can also help the patient become more aware of how movement behavior reflects the emotional state of the moment or help the patient recall earlier emotions or experiences. Dance therapy produces social interaction through the nonverbal relationships that can occur during dance therapy sessions.

Music therapy is useful in facilitating psychotherapy because it stimulates the awareness and expression of emotions and ideas on an immediate and experiential level. When a person interacts musically with others, he or she may experience (separately or simultaneously) the overall musical gestalt of the group, the act of relating to and interacting with others, and his or her own feelings and thoughts about self, music, and the interactions that have occurred. The nonverbal, structured medium allows individuals to maintain variable levels of distance from intrapsychic (within self) and interpersonal (between people) processes. The abstract nature of music provides flexibility in how people relate to or take responsibility for their own musical expressions. The nonverbal expression may be a purely musical idea, or it may be part of a personal expression to the self or to others.

After the activity, the typical follow-through is to have each client share what was seen, heard, or felt during the musical experience. Patients use their musical experiences to examine their cognitive and affective reactions to them. It is then the responsibility of the music therapist to process with the individual the reactions and observations derived from the musical experience and to help the person

generalize them—that is, determine how they might be applied to everyday life outside the music therapy session. Group musical experiences seem to stimulate verbal processing, possibly because of the various levels of interaction available to the group members.

Theater therapy, or drama therapy, uses either role playing or improvisation to reach goals similar to those of music and dance therapy. The aims of the drama therapy process are to recognize experience, to increase one's role repertoire, and to learn how to play roles more spontaneously and competently.

The key concepts of drama therapy are the self and roles. Through role taking, the processes of imitation, identification, projection, and transference take place. Projection centers on the concept that inner thoughts, feelings, and conflicts will be projected onto a relatively ambiguous or neutral role. Transference is the tendency of an individual to transfer his or her feelings and perceptions of a dominant childhood figure—usually a parent—to the role being played.

Applications

The goal of theater or drama therapy is to use the universal medium of theater as a setting for the psychotherapeutic goals. Opportunities for potential participants include forms of self-help, enjoyment, challenge, personal fulfillment, friendship, and support. The theater setting helps each individual work with issues of control, reality testing, and stress reduction.

David Johnson and Donald Quinlan have conducted substantial research into the effects of drama therapy on populations of schizophrenics. Their research addresses the problem of the loss of the self and the potential of drama therapy in recovering it. They found that paranoid schizophrenics create more rigid boundaries in their role playing, while nonparanoid schizophrenics create more fluid ones. They concluded that improvisational role playing is an effective means to assess boundary behaviors and differentiate one diagnostic group of schizophrenics from another.

Dance therapy has been found to be extremely useful in work with autistic children, as well as children with minimal brain dysfunction (MBD). The MBD child's symptoms may range from a behavioral disorder to a learning disability. Though the symptoms vary, and some seem to vanish as the child matures, the most basic single characteristic seems to be an inability to organize internal and external stimuli effectively. By helping the MBD child to reexperience, rebuild, or experience for the first time those elements upon which a healthy body image and body scheme are built, change can be made in the areas of control, visual-motor coordination, motor development, and self-concept.

The goals of dance therapy with the MBD child are to help the child identify and experience his or her body boundaries, to help each child master the dynamics of moving and expressing feelings with an unencumbered body, to focus the hyperactive child, to lessen anxiety and heighten ability to socialize, and to strengthen the self-concept.

Music therapy has been used successfully with patients who have anorexia nervosa, an eating disorder which has been called "self-starvation." Anorexia

nervosa represents an attempt to solve the psychological or concrete issues of life through direct, concrete manipulation of body size and weight. Regardless of the type or nature of the issues involved, which vary greatly among anorectic clients, learning to resolve conflicts and face psychological challenges effectively without the use of weight control is the essence of therapy for these clients. To accomplish this, anorectics must learn to divorce their eating from their other difficulties, stop using food as a tool for problem solving, face their problems, and believe in themselves as the best source for solving those problems. Music therapy has provided a means of persuading clients to accept themselves and their ability to control their lives, without the obsessive use of weight control, and to interact effectively and fearlessly with others.

Many health professionals have acknowledged the difficulty of engaging the person with anorexia in therapy, and music has been found to work well. Because of its nonverbal, nonthreatening, creative characteristics, music can provide a unique, experiential way to help clients acknowledge psychological and physical problems and resolve personal issues.

Perspective and Prospects

The interdisciplinary sources of dance, music, and drama therapies bring a wide range of appropriate research methodologies and strategies to the discipline of psychology. These therapies tend to defy conventional quantification. Attempts to construct theoretical models of these therapies draw on the disciplines of psychology, sociology, medicine, and the arts. There is no unified approach to the study and practice of these therapies.

Dance therapy has its roots in ancient times, when dance was an integral part of life. It is likely that people danced and used body movement to communicate long before language developed. Dance could express and reinforce the most important aspects of a culture. Societal values and norms were passed down from one generation to another through dance, reinforcing the survival mechanism of the culture.

The direct experience of shared emotions on a preverbal and physical level in dance is one of the key influences in the development of dance or movement therapy. The feelings of unity and harmony that emerge in group dance rituals provide the basis of empathetic understanding between people. Dance, in making use of natural joy, energy, and rhythm, fosters a consciousness of self. As movement occurs, body sensations are often felt more clearly and sharply. Physical sensations provide the basis from which feelings emerge and become expressed. Through movement and dance, preverbal and unconscious material often crystallizes into feeling states of personal imagery. It was the recognition of these elements, inherent in dance, that led to the eventual use of dance or movement in psychotherapy.

Wilhelm Reich was one of the first physicians to become aware of and utilize body posturing and movement in psychotherapy. He coined the term “character armor” to describe the physical manifestation of the way an individual deals with anxiety, fear, anger, and similar feelings. The development of dance into a thera-

peutic modality, however, is most often credited to Marian Chace, a former dance teacher and performer. She began her work in the early 1940's with children and adolescents in special schools and clinics. In the 1950's and 1960's, other modern dancers began to explore the use of dance as a therapeutic agent in the treatment of emotional disturbances.

There is a much earlier history of music therapy; the use of music in the therapeutic setting dates back to the 1700's. Early research showed music therapy useful for helping mental patients, people with physical disabilities, children with emotional, learning, or behavioral problems, and people with a variety of other difficulties.

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Robin Franck

See also:

Abnormality: Psychodynamic Models; Anorexia Nervosa and Bulimia Nervosa; Autism; Group Therapy; Person-Centered Therapy; Play Therapy; Psychotherapy: Children; Psychotherapy: Goals and Techniques; Schizophrenia.

NEUROSIS

Type of psychology: Psychotherapy
Fields of study: Anxiety disorders; depression; sexual disorders; substance abuse

Neurosis is a chronic mental disorder characterized by distressing and unacceptable anxiety.

Principal terms

ADDICTION: the use of substances or self-defeating behaviors to fulfill one's need for love instead of loving self or another person

ANXIETY: a generalized anxious affect which is pervasive and without a known cause

COMPULSION: a repetitively performed behavior that bears little relation to a person's needs

DEPRESSION: a mood of sadness, unhappiness, hopelessness, loss of interest, difficulty concentrating, and lack of a sense of self-worth

HYSTERIA: the presence of somatic symptoms resembling those of a physical disease without actual physical illness

OBSESSION: a recurrent thought that is foreign or intrusive

PHOBIA: an abnormal fear that arises because an inner fear is displaced onto an object or situation outside the individual

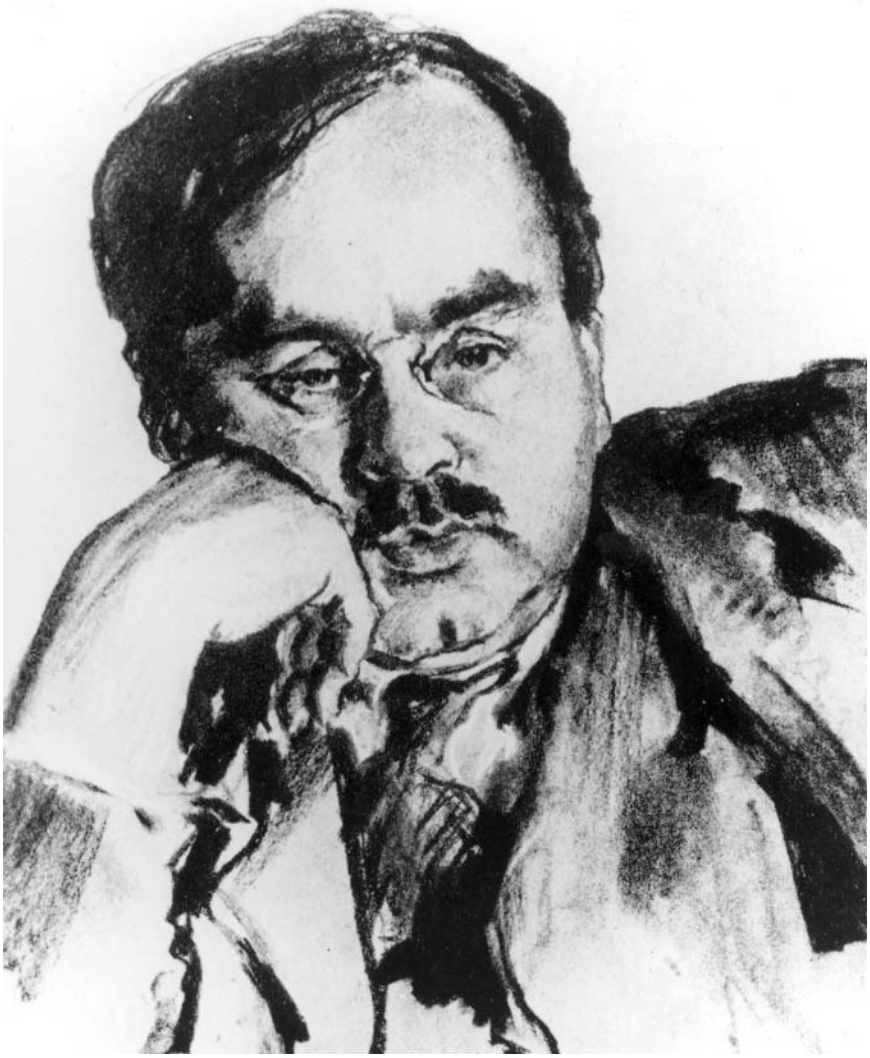
PSYCHOSOMATIC DISORDER: an organic illness caused by psychological distress

Causes and Symptoms

A neurosis is experienced at a level of severity that is less than psychotic but significant enough to impair a person's functioning. The term "neurosis" includes nine psychological states: hysteria, obsessions and compulsions, phobias, some depressions, some traumatic reactions, addictions, psychosomatic disorders, some sexual disorders, and anxiety. A person tends to continue suffering from one of the recurrent and continuing reactions noted above, if not treated for the neurosis.

Hysteria features somatic symptoms resembling those of a physical disease without actual physical illness (for example, a headache without organic cause). Phobias are abnormal fears that arise because an inner fear is displaced onto an object or situation outside the individual (for example, impotence to deal with fear of intimacy). Obsessions (recurrent thoughts) and compulsions (repetitively performed behaviors) bear little relation to the person's needs and are experienced by the person as foreign or intrusive (for example, repeated hand washing). Depression is a mood of sadness, unhappiness, hopelessness, loss of interest, difficulty concentrating, and lack of a sense of self-worth. Addictions are the use of substances or self-defeating behaviors to fulfill one's need for love instead of loving self or another person (for example, addiction to gambling). Psychosomatic disorders are organic illnesses caused by psychological distress (for example, peptic ulcer). Sexual disorders are the avoidance of developing adult sexual competency

by immature sexual behavior (for example, exhibitionism). Traumatic reactions in the past delay or impair normal development in the present (for example, childhood sexual abuse leads to difficulty with intimacy as an adult). Anxiety is experienced as a generalized anxious affect which is pervasive and without a known cause (for example, a person chronically worrying that "something bad will happen").



Austrian physician Alfred Adler, who claimed that neurotic persons project their rigid thought process onto the world.

Treatment and Therapy

All the forms of neuroses listed above need treatment to be resolved. All have the potential to become borderline or overtly psychotic disorders under stress. Treat-

ment involves entering psychotherapy to understand better and therefore manage neurotic symptoms. It often can require the use of psychoactive medications for the treatment of anxieties, depressions, obsessions, and addictions. Treatment can be received from family physicians and general internists at the first level of intervention. Patients refer to psychiatrists, psychologists, social workers, and substance counselors for more advanced interventions.

Perspective and Prospects

Sigmund Freud (1856-1939), Alfred Adler (1870-1937), Carl Jung (1875-1961), and Karen Horney (1885-1952) all made major contributions toward understanding neuroses. All four were Austrian-born physicians who helped invent modern psychology, eventually leaving Austria to work in either Great Britain or America.

Freud founded psychoanalysis with his work on the causes and treatment of neurotic and psychopathic states. The methods that he developed form the root of all "talking therapies." Freud proposed that psychological conflicts produce neuroses according to the following pattern. Inner conflicts are produced by fears or guilt around one's emerging sexual drives. The conflicts, if not resolved on a conscious level, are repressed on the unconscious level, where they drive a person to act according to one or more of the various neurotic symptoms.

Adler was one of the four original members of Freud's psychoanalytic school. With his emphasis on the person as a whole being and on the importance of willpower, he created an individual psychology for the twentieth century. Adler said that neurotic persons form a rigid way of thinking about themselves and others. They then project that rigid thought process onto the world. They proceed to operate as though the world accepted their rigid thinking as real. This tendency is at the basis of the neurotic thought processes of sadism, hatred, intolerance, envy, and irresponsibility.

Jung was the only member of Freud's inner circle who was formally trained as a psychiatrist. He founded analytic psychology, which studies mental behavior as complexes of behavior, emotion, thought, and imagery. He opened up psychology to religious and mystical experiences. Jung wrote that neuroses are a dissociation of the personality caused by splitting. A person has a conscious set of values or beliefs which conflict with an opposite set of feelings. The person, rather than resolving the problem, maintains the rational-emotive split as one or more of the forms of neuroses.

Horney developed a psychoanalytic theory of humans who evolve within their culture, family, and environment. She was sensitive to the negative effects of a male-dominated psychology, attempting to explain women's experiences. Horney believed that neuroses are disturbances in the relationship of self-to-self and self-to-other. If one's development in childhood is disturbed from its normal pattern, the adult will use one of three neurotic coping styles: compliance, aggressiveness, or detachment.

These four psychologists agreed that neuroses are a childhood developmental defect which impairs the adult's rational-emotional integration, appearing as one or more of the indirect symptoms of anxiety.

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Gerald T. Terlep

See also:

Addictive Personality and Behaviors; Agoraphobia and Panic Disorders; Anxiety Disorders; Depression; Hypochondriasis, Conversion, Somatization, and Somatoform Pain; Manic-Depressive Disorder; Midlife Crises; Obsessive-Compulsive Disorder; Paranoia; Phobias; Psychoanalysis; Psychosis; Psychosomatic Disorders; Stress.

Obsessive-Compulsive Disorder

Type of psychology: Psychopathology
Fields of study: Anxiety disorders

This anxiety disorder is characterized by intrusive and unwanted but uncontrollable thoughts, by the need to perform ritualized behavior patterns, or both. The obsessions and/or compulsions cause severe stress, consume an excessive amount of time, and greatly interfere with a person's normal routine, activities, or relationships.

Principal terms

ANAL STAGE: the stage of psychosexual development in which a child derives pleasure from activities associated with elimination
ANXIETY: an unpleasant feeling of fear and apprehension
BIOGENIC MODEL: the theory that every mental disorder is based on a physical or physiological problem
MAJOR AFFECTIVE DISORDER: a personality disorder characterized by mood disturbances
MONOAMINE OXIDASE INHIBITORS: antidepressant compounds used to restore the balance of normal neurotransmitters in the brain
PHOBIA: a strong, persistent, and unwarranted fear of a specific object or situation
TOURETTE'S SYNDROME: a childhood disorder characterized by several motor and verbal tics that may develop into the compulsion to shout obscenities
TRICYCLICS: medications used to relieve the symptoms of depression

Causes and Symptoms

Obsessive-compulsive disorder (OCD) is an anxiety disorder that is characterized by intrusive and uncontrollable thoughts and/or by the need to perform specific acts repeatedly. Obsessive-compulsive behavior is highly distressing because one's behavior or thoughts are no longer voluntarily controlled. The more frequently these uncontrolled alien and perhaps unacceptable thoughts or actions are performed, the more distress is induced. A disturbed individual may have either obsessions (which are thought-related) or compulsions (which are action-related), or both. At various stages of the disorder, one of the symptoms may replace the other.

OCD affects 1 to 2 percent of the population; most of those afflicted begin suffering from the disorder in early adulthood, and it is often preceded by a particularly stressful event such as pregnancy, childbirth, or family conflict. It may be closely associated with depression, with the disorder developing soon after a bout of depression or the depression developing as a result of the disorder. OCD is more likely to occur among intelligent, upper-income individuals, and men and

women are equally affected. A fairly high proportion (as much as 50 percent) do not marry.

Obsessions generally fall into one of five recognized categories. Obsessive doubts are persistent doubts that a task has been completed; the individual is unwilling to accept and believe that the work is done satisfactorily. Obsessive thinking is an almost infinite chain of thought, targeting future events. Obsessive impulses are very strong urges to perform certain actions, whether they be trivial or serious, that would likely be harmful to the obsessive person or someone else and that are socially unacceptable. Obsessive fears are thoughts that the person has lost control and will act in some way that will cause public embarrassment. Obsessive images are continued visual pictures of either a real or an imagined event.

Four factors are commonly associated with obsessive characteristics, not only in people with OCD but in the general population as well. First, obsessives are unable to control mental processes. Practically, this means the loss of control over thinking processes, such as thoughts of a loved one dying or worries about hurting someone unintentionally. Second, there may be thoughts and worries over the potential loss of motor control, perhaps causing impulses such as shouting obscenities in church or school, or performing inappropriate sexual acts. Third, many obsessives are afraid of contamination and suffer irrational fear and worry over exposure to germs, dirt, or diseases. The last factor is checking behavior, or backtracking previous actions to ensure that the behavior was done properly, such as checking that doors and windows are shut, faucets are turned off, and so on. Some common obsessions are fear of having decaying teeth or food particles between the teeth, fear of seeing fetuses lying in the street or of killing babies, worry about whether the sufferer has touched vomit, and fear of contracting a sexually transmitted disease.

Compulsions may be either mild or severe and debilitating. Mild compulsions might be superstitions, such as refusing to walk under a ladder or throwing salt over one's shoulder. Severe compulsions become fixed, unvaried ritualized behaviors; if they are not practiced precisely in a particular manner or a prescribed number of times, then intense anxiety may result. Even these strange behaviors may be rooted in superstition; many of those suffering from the disorder believe that performing the behavior may ward off danger. Compulsive acts are not ends in themselves but are "necessary" to produce or prevent a future event from occurring. Although the enactment of the ritual may assuage tension, the act does not give the compulsive pleasure.

Several kinds of rituals are typically enacted. A common ritual is repeating; these sufferers must do everything by numbers. Checking is another compulsive act; a compulsive checker believes that it is necessary to check and recheck that everything is in order. Cleaning is a behavior in which many compulsives must engage; they may wash and scrub repeatedly, especially if the individual thinks that he or she has touched something dirty. A fourth common compulsive action is avoiding; for certain superstitious or magical reasons, certain objects must be avoided. Some compulsives experience a compelling urge for perfection in even

the most trivial of tasks; often the task is repeated to ensure that it has been done correctly. Some determine that objects must be in a particular arrangement; these individuals are considered "meticulous." A few sufferers are hoarders; they are unable to throw away trash or rubbish. All these individuals have a constant need for reassurance; for example, they want to be told repeatedly that they have not been contaminated.

No cause for OCD has been isolated. Therapists even disagree over whether the obsessions increase or decrease anxiety. Three theories exist that attempt to explain the basis of OCD psychologically: guilt, anxiety, and superstition. Sigmund Freud first proposed that obsessive thoughts are a replacement for more disturbing thoughts or actions that induce guilt in the sufferer. These thoughts or behaviors, according to Freud, are usually sexual in nature. Freud based his ideas on the cases of some of his young patients. In the case of a teenage girl, for example, he determined that she exchanged obsessive thoughts of stealing for the act of masturbation. The thoughts of stealing produced far fewer guilt feelings than masturbation did. Replacing guilt feelings with less threatening thoughts prevents one's personal defenses from being overwhelmed. Other defense mechanisms may be parlayed into OCD. Undoing, one of these behaviors, is obliterating guilt-producing urges by undergoing repetitive rituals, such as handwashing. Since the forbidden urges continue to recur, the behavior to replace those urges must continue. Another mechanism is reaction formation. When an unacceptable thought or urge is present, the sufferer replaces it with an exactly opposite behavior. Many theorists believe that both obsessive and compulsive behaviors arise as a consequence of overly harsh toilet training. Thus the person is fixated at the anal stage and, by reaction formation, resists the urge to soil by becoming overly neat and clean. A third mechanism is isolation, the separation of a thought or action from its effect. Detachment or aloofness may isolate an individual from aggressive or sexual thoughts.

Although there is disagreement among therapists regarding the role of the anxiety associated with OCD, some theorize that OCD behaviors develop to reduce anxiety. Many thought or action patterns emerge as a way of escape from stress, such as daydreaming during an exam or cleaning one's room rather than studying for a test. If the stress is long-lasting, then a compulsive behavior may ensue. This theory may not answer the problem of behaviors such as handwashing. If this theory is always viable, then washers should feel increased anxiety at touching a "contaminated" object and washing should relieve and reduce those feelings. While this does occur in some instances, it does not explain the origin of the disorder.

The superstition hypothesis proposes a connection between a chance association and a reinforcer that induces a continuation of the behavior. Many theorists believe that the same sequence is involved in the formation of many superstitions. A particular obsessive-compulsive ritual may be reinforced when a positive outcome follows the behavior; anxiety results when the ritual is interrupted. An example would be a student who only uses one special pencil or pen to take exams, based on a previous good grade. In actuality, there is seldom a real relationship between

the behavior and the outcome. This hypothesis, too, fails to explain the development of obsessions.

A fourth theory is accepted by those who believe that mental disorders are the result of something physically or physiologically amiss in the sufferer, employing data from brain structure studies, genetics, and biochemistry. Indeed, brain activity is altered in those suffering from OCD; and they experience increased metabolic activity. Whether the activity is a cause or an effect, however, is unclear. Studies of genetics in families, at least in twins, reinforce the idea that genetics may play a small role in OCD because there appears to be a higher incidence of the disorder in identical twins than in other siblings. Yet these results may be misleading: Because all the studies were carried out on twins who were reared together, environment must be considered. Relatives of OCD sufferers are twice as likely as unrelated individuals to develop the same disorder, indicating that the tendency for the behavior could be heritable.

Treatment and Therapy

While obsessional symptoms are not uncommon in the general population, a diagnosis of OCD is rare. Perhaps between five thousand and ten thousand Americans are affected by this mental disorder, although many sufferers are too horrified to admit to their symptoms.

Diagnostic techniques evaluating OCD have not changed much since the nineteenth century. There may be confusion about whether the patient is actually suffering from schizophrenia or a major affective disorder. When depression is also noted, it is important to determine whether the OCD is a result of the depression or the depression is a result of the OCD. If such a determination is not possible, both disorders must be treated.

In cases where differentiation between OCD and schizophrenia is necessary, the distinction can be made by determining the motive behind the ritualized behavior. Stereotyped behaviors are symptomatic of both disorders. In the schizophrenic, however, the behavior is triggered by delusions rather than by true compulsions. People suffering from true delusions cannot be shaken from them; they do not resist the ideas inundating the psyche and even rituals may not decrease the feelings associated with these ideas. On the other hand, obsessive people may be absolutely certain of the need to perform their ritual while other aspects of their thinking and logic are perfectly clear. They generally resist the ideas that enter their minds and realize the absurdity of the thoughts. As thoughts and images intrude into the obsessive person's mind, the person may appear to be schizophrenic.

Other disorders having symptoms in common with OCD are Tourette's syndrome and amphetamine abuse. What seems to separate the symptoms of these disorders from those experienced with OCD is that the former are organically induced. Thus, the actions of a sufferer from Tourette's syndrome may be mechanical since they are not intellectually dictated or purposely enacted. In the case of the addict, the acts may bring pleasure and are not resisted.

"Normal" people also have obsessive thoughts; in fact, the obsessions of normal individuals are not significantly different from the obsessions of those with OCD.

The major difference is that those with the disorder have longer-lasting, more intense, and less easily dismissed obsessive thoughts. The importance of this overlap is that mere symptoms are not a reliable tool to diagnose OCD, since some of the same symptoms are experienced by the general population.

Assessment of OCD separates the obsessive from the compulsive components so that each can be examined. Obsessional assessment should determine the triggering fears of the disorder, both internal and external, including thoughts of unpleasant consequences. The amount of anxiety that these obsessions produce should also be monitored. The compulsive behaviors then should be examined in the same light.

The greatest chance for successful treatment occurs with patients who experience mild symptoms that are usually obsessive but not compulsive in nature, with patients who seek help soon after the onset of symptoms, and with patients who had few problems before the disorder began. Nevertheless, OCD is one of the most difficult disorders to treat. Types of treatment fall into four categories: psychotherapy, behavioral therapy, drug therapy, and psychosurgery.

When psychotherapy is attempted, it usually begins with psychoanalysis. Whether psychoanalysis will be successful is often determined by the stressor or inducer of the thought or action and the personality of the patient. The major goal of this psychoanalytical approach is to find and then remove an assumed repression so that the patient can deal honestly and openly with whatever is actually feared. Some analysts believe that focusing on the present is most beneficial, since delving into the past may strengthen the defensive mechanism (the compulsive behavior). If the patient attempts to "return" to the mitigating event, the analyst should intervene directly and actively and bring the patient back to the present by encouraging, pressuring, and guiding him or her.

The most effective treatment for controlling OCD is the behavioral approach, in which the therapist aids the patient in replacing the symptoms of the obsession or compulsion with preventive or replacement actions. Aversive methods may include a nonvocal, internal shout of "stop!" when the obsessive thoughts enter the mind, the action of snapping a rubber band on the wrist, or physically restraining oneself if the compulsive action begins. This latter approach may be so uncomfortable and disconcerting to the patient that it may work only under the supervision supplied by a hospital.

Behavioral therapy may also help by breaking the connection between the stimulus (what induces the compulsion or obsession) and anxiety. Response prevention involves two stages. First, the patient is subjected to flooding, the act of exposing the patient to the real and/or imagined stimuli that cause anxiety. This process begins with brief exposure to the stressors while the therapist assesses the patient's thoughts, feelings, and behaviors during the stimulus period. In the second stage, the patient is flooded with the stimuli but restrained from acting on those stressors. Although flooding may produce intense discomfort at first, the patient is gradually desensitized to the stimuli, causing the resulting anxiety to decrease. The therapist must expend considerable time preventing the response, discussing the anxiety as it appears, and supporting the patient as the anxiety

abates. To be effective, treatment must also occur in the home with the guidance and support of family members who have been informed about how best to interact with the patient. While behavioral treatment can help to control OCD, it does not generally "cure" the disorder. If the patient is also depressed, successful treatment with behavioral therapy is even less likely.

Drugs commonly used to treat OCD that have met with some success include antidepressants, tricyclics, monoamine oxidase inhibitors, LSD, and tryptophan. Although a psychiatrist may prescribe tranquilizers to reduce the patient's anxiety, these drugs are usually not adequate to depress the frequent obsessive thoughts or compulsive actions. Antidepressants may occasionally benefit those who are suffering from depression as well as OCD; as depression is lifted, some of the compulsive behavior is also decreased. Monoamine oxidaseinhibitors (MAOIs) are used most effectively in treating OCD associated with panic attacks, phobias, and severe anxiety. When medication is halted, however, the patient often relapses into the previous obsessive-compulsive state.

Some psychosurgeons may resort to psychosurgery to relieve a patient's symptoms. The improvement noted after surgery may simply be attributable to the loss of emotion and dulling of behavioral patterns found in any patient who has undergone a lobotomy. Because such surgery may result in a change in the patient's intellect and emotional response, it should be considered only in extreme, debilitating cases. Newer surgical techniques do not destroy as much of the cerebral cortex as they once did. These procedures separate the frontal cortex from lower brain areas in only an 8-centimeter square area.

Perspective and Prospects

Descriptions of OCD behavior go back to medieval times; a young man who could not control his urge to stick out his tongue or blurt out obscenities during prayer was reported in the fifteenth century. Medical accounts of the disorder and the term "obsessive-compulsive" originated in the mid-1800's. At this time obsessions were believed to occur when mental energy ran low. Later, Freud stated that OCD was accompanied by stubbornness, stinginess, and tidiness. He attributed the characteristics to a regression to early childhood, when there are perhaps strong urges to violence or to dirty and mess one's surroundings. To avoid acting on these tendencies, he theorized, an avoidance mechanism is employed, and the symptoms of obsession and/or compulsion appear. Other features related to this regression are ambivalence, magical thinking, and a harsh, punitive conscience.

An unpleasant consequence of OCD behavior is the effect that the behavior has on the people who interact with the sufferer. The relationships with an obsessive person's family, schoolmates, or coworkers all suffer when a person with OCD takes up time with uncontrollable and lengthy rituals. These people may feel not only a justifiable concern but also resentment. Some may feel guilt over the resentful feelings because they know the obsessive-compulsive cannot control these actions. An obsessive-compulsive observing these conflicting feelings in others may respond by developing depression or other anxious feelings, which may cause further alienation.

Although not totally disabling, OCD behaviors can be strongly incapacitating. A famous figure who suffered from OCD was millionaire and aviator Howard Hughes (1905-1976). A recluse after 1950, he became so withdrawn from the public that he only communicated via telephone and intermediaries. His obsession-compulsion was the irrational fear of germs and contamination. At first, it began by his refusal to shake hands with people. If he had to hold a glass or open a door, he covered his hand with a tissue. He would not abide any of his aides eating foods that gave them bad breath. He disallowed air conditioners, believing that they collected germs. Because Hughes acted on his obsessions, they became compulsions.

Most parents will agree that children commonly have rituals to which they must adhere or compulsive actions they carry out. A particular bedtime story may be read every night for months on end, and children's games involve counting or checking rituals. It is also not atypical for adults without psychiatric disorders to experience some mild obsessive thoughts or compulsive actions, as seen in an overly tidy person or in group rituals performed in some religious sects. Excessively stressful events may trigger obsessional thoughts as well. Some behaviors commonly called compulsions are not truly compulsive in nature. For example, gambling, drug addiction, or exhibitionism are not clinically compulsive because these addictive behaviors bring some pleasure to the person. The anxiety ensuing from these addictive behaviors is appropriate by society's standards; compulsive behavior produces anxiety that is considered inappropriate to the situation.

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Iona C. Baldridge

See also:

Addictive Personality and Behaviors; Agoraphobia and Panic Disorders; Anorexia Nervosa and Bulimia Nervosa; Anxiety Disorders; Aversion, Implosion, and Systematic Desensitization Therapies; Depression; Eating Disorders; Manic-Depressive Disorder; Neurosis; Paranoia; Phobias; Psychoanalysis; Schizophrenia; Stress.

Operant Conditioning Therapies

Type of psychology: Psychotherapy
Fields of study: Behavioral and cognitive models; behavioral therapies

Operant conditioning therapies are based on the assumption that operant behavior is shaped by its consequences; therapists use reinforcement, extinction, punishment, and discrimination training to overcome behavioral problems. Operant conditioning techniques have been applied to individual and group behavior in a variety of settings, including hospitals, prisons, schools, businesses, and homes.

Principal terms

AVERSIVE STIMULUS: a painful or unpleasant event
DISCRIMINATION TRAINING: reinforcing a response in the presence of one stimulus and extinguishing the response in the presence of other stimuli
EXTINCTION: a procedure used to eliminate a previously reinforced response by withholding the reinforcer following the response
NEGATIVE PUNISHMENT: a procedure used to decrease the frequency of a response by removing a positive reinforcer following the response
OPERANT CONDITIONING: a form of learning in which voluntary behavior is modified by its consequences
POSITIVE PUNISHMENT: a procedure used to decrease the frequency of a response by presenting an aversive stimulus following the response
POSITIVE REINFORCEMENT: a procedure used to increase the frequency of a response by presenting a favorable consequence following the response
SUCCESSIVE APPROXIMATIONS: responses that more and more closely resemble the desired response

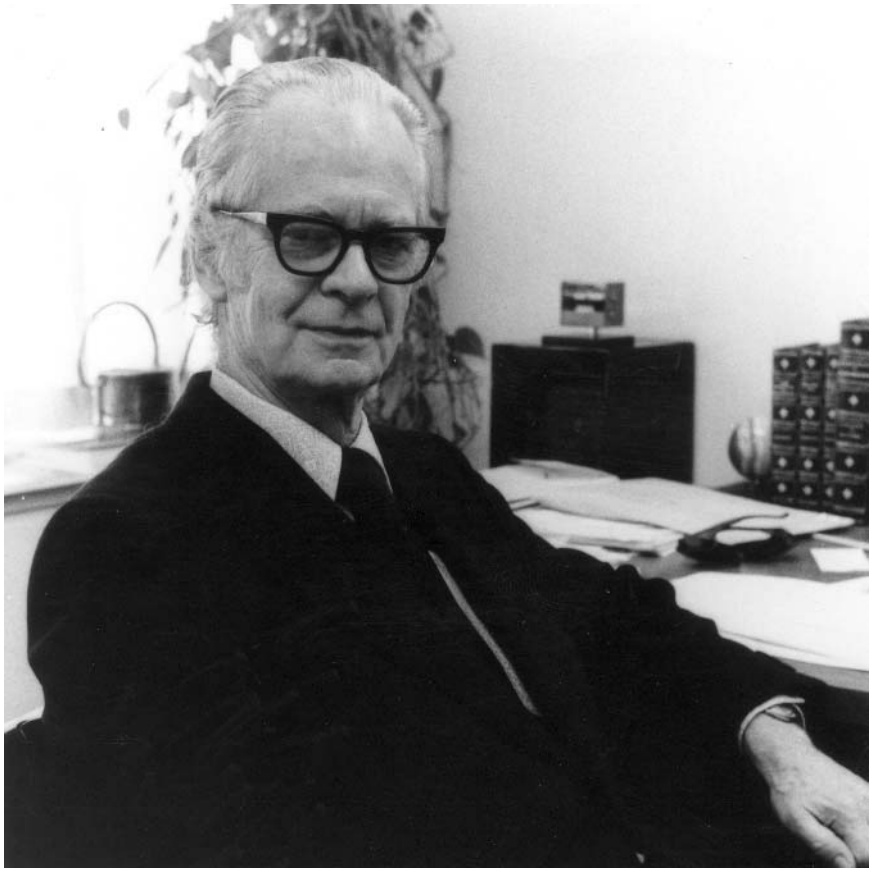
Overview

Behavior therapy uses principles of learning to modify human behavior. One orientation within behavior therapy is the operant conditioning approach, also called behavior modification. This approach modifies operant behavior by manipulating environmental consequences. The term "operant" refers to voluntary or emitted behavior that operates on the environment to produce consequences. The basic premise of operant conditioning is that operant behavior is controlled by its consequences. What happens to an individual after he or she performs some behavior determines the likelihood of that behavior being repeated. Pleasant or reinforcing consequences strengthen behavior, while unpleasant or punishing consequences weaken behavior.

Several characteristics distinguish the operant approach to therapy. One is the manner in which clinical problems are conceptualized and defined. Traditional psychotherapy tends to view disturbed behavior as a symptom of an internal

psychological conflict; the goal of therapy is to help the individual gain insight into this inner problem. Therapists with an operant orientation, however, view maladaptive behavior as the problem itself. They believe that, just as normal or adaptive behavior is shaped by environmental consequences, so too is abnormal or maladaptive behavior. Therefore, by carefully arranging events in the client's environment, it should be possible to modify maladaptive behavior and help the client learn more appropriate ways of behaving.

The behavior therapist defines problems in terms of specific behaviors that can be observed and quantified. Behavioral excesses involve too much of a specific behavior that can be specified in terms of frequency, intensity, or duration. Chain-smoking, overeating, and physically abusing another person are examples of behavioral excesses. The opposite difficulty is a behavioral deficit. In the case of a behavioral deficit, a behavior either does not occur or occurs at an extremely low rate. An adult who cannot feed or dress himself and a child who rarely talks to other



Operant conditioning therapies evolved from the laboratory research of B.F. Skinner, who derived its basic principles by studying the effects of environmental consequences on lever-pressing behavior in rats. (Alfred A. Knopf)

children exhibit behavioral deficits. Still other behaviors are problematic because they are inappropriate when performed in a particular setting. Taking one's clothes off in public or laughing during a solemn funeral service illustrates behavioral inappropriateness.

Behavioral monitoring is an integral component of operant conditioning therapies. The problem behavior is first observed and recorded as it naturally occurs in a variety of settings, and no attempt is made to modify the behavior. The therapist, a parent, a teacher, a spouse, a peer, or the client may conduct the observation and record the behavior. This part of the behavior-modification program, which is called baseline observation, provides a record of where and when the behavior occurred as well as information about its topography or form, such as duration and intensity. Behavioral measures are often plotted on a graph to provide a visual record of behavior. The baseline data are used to define the problem or target behavior as precisely as possible. The client and therapist also define the desired changes in this target behavior and set up specific behavioral goals to be met during treatment.

Operant techniques that are appropriate for modifying the target behavior are then selected. Therapists begin by selecting the least intrusive and restrictive procedures demonstrated to be effective for treating a specific problem. Since these techniques are based on years of experimental research and evaluation, it is possible for therapists to define explicitly their methods and their rationale to the client. This degree of precision, rarely found in traditional psychotherapy, makes it easier for clients and those working with clients to understand and implement therapeutic procedures.

Behavioral observation continues throughout the treatment phase of the modification program. Behavior is monitored on a regular basis, and changes from the baseline level are recorded. Examination of this ongoing record of behavioral progess allows both therapist and client to evaluate the effectiveness of the treatment at any given time. If behavior is not changing in the desired direction or at the desired pace, the treatment program can be altered or adjusted.

Behavior modifiers often include a follow-up phase as part of the modification program. After termination of treatment, the client may be contacted on a periodic basis to assess whether treatment gains are being maintained. Behavior therapists have discovered that generalization of behavior changes from the therapeutic setting to the natural environment does not occur automatically. An increasing emphasis is being placed on incorporating procedures to facilitate behavior transfer into modification programs. Some therapists have reduced their reliance on tangible reinforcers, such a food or toys, and have stressed the use of social and intrinsic reinforcers, such as positive attention from others and personal feelings of pride and mastery. These are the kinds of reinforcers that are likely to maintain positive behavioral changes in the client's natural setting. Therapists also devote attention to training individuals who will interact with the client after the termination of treatment in the effective use of operant procedures.

Ethical guidelines are followed when conducting a behavior-modification program. Since behavior therapists insist on explicit definition of problem behaviors

and treatment methods, this approach facilitates public scrutiny of ethical conduct. Educating the client in the rationale and application of procedures greatly reduces the possibility that operant conditioning techniques will be used in an exploitive or harmful fashion.

Applications

The treatment of behavioral deficits typically involves the application of positive-reinforcement techniques. Positive reinforcement increases the frequency of a response by immediately following the response with a favorable consequence. If the desired behavior does not occur at all, it can be developed by using the shaping procedure. In shaping, successive approximations of the desired behavior are reinforced. Wayne Isaacs, James Thomas, and Israel Goldiamond provided an impressive demonstration of the use of shaping to reinstate verbal behavior in a schizophrenic patient who had been mute for nineteen years. Chewing gum was used as the positive reinforcer, and gum delivery was made contingent first upon eye movements in the direction of the gum, then upon lip movements, then upon any vocalization, and finally upon vocalizations that increasingly approximated actual words. Within six weeks, the patient was conversing with the therapist.

Positive reinforcement is also used to strengthen weak or low-frequency behaviors. Initially, the desired behavior is placed on a continuous reinforcement schedule in which each occurrence of the behavior is followed by reinforcer delivery. Gradually, an intermittent schedule can be introduced, with several responses or a time interval required between successive reinforcer deliveries.

Since people get tired of the same reinforcer and different people find different commodities and activities reinforcing, a token economy system provides another means of programming positive reinforcement. A system that delivers tokens as rewards for appropriate behaviors can be used with a single individual or a group of individuals. Tokens are stimuli such as check marks, points, stickers, or poker chips, which can be accumulated and later exchanged for commodities and activities of the individual's choosing. Tokens can be delivered on a continuous or intermittent schedule of reinforcement and are often accompanied by praise for the desired behavior. Ultimately, the goal of the program is to fade out the use of tokens as more natural social and intrinsic reinforcers begin to maintain behavior.

Extinction and punishment procedures are used to treat behavioral excess. If the reinforcer that is maintaining the excessive behavior can be identified, an extinction program may be effective. Extinction is a procedure that is used to eliminate a response by withholding the reinforcer following performance of the response. A classic demonstration of extinction is a study by Carl Williams designed to eliminate intense tantrum behavior at bedtime in a twenty-one-month-old child. Observation revealed that parental attention was reinforcing tantrums, so the parents were instructed to put the child to bed, close the bedroom door, and not return to the child's room for the rest of the night. This extinction procedure eliminated tantrums in seven nights. Tantrums were then accidentally reinforced by the child's aunt, and a second extinction procedure was instituted. Tantrums were reduced to a zero level by the ninth session, and a two-year follow-up

revealed that no further tantrums had occurred.

Punishment procedures decrease the frequency of a response by removing a reinforcing stimulus or by presenting an aversive stimulus immediately following the response. Removal of a positive reinforcer contingent upon performance of the target behavior is called negative punishment or response cost. Some token economy systems incorporate a response cost component, and clients lose tokens when specified inappropriate behaviors are performed. In another form of negative punishment, time-out or sit-out, an individual is moved from a reinforcing environment to one that is devoid of positive reinforcement for a limited amount of time. For example, a child who misbehaves during a classroom game might be seated away from the other children for a few minutes, thereby losing the opportunity to enjoy the game.

The most intrusive behavior-reduction technique is positive punishment, which involves the presentation of an aversive stimulus contingent upon performance of the undesirable behavior. This procedure is used only when other procedures have failed and the behavioral excess is injurious to the client or to others. Thomas Sajwaj and his colleagues employed a positive punishment procedure to reduce life-threatening regurgitation behavior in a six-month-old infant. Within a few minutes of being fed, the infant would begin to bring up the milk she had consumed, and regurgitation continued until all the milk was lost. Treatment consisted of filling the infant's mouth with lemon juice immediately following mouth movements indicative of regurgitation. Regurgitation was reduced to a very low level after sixteen lemon-juice presentations.

Extinction and punishment techniques can produce side effects that include aggressive behavior and fear, escape, and avoidance responses. These can be reduced by combining behavior-reduction procedures with a program of positive reinforcement for desirable alternative behaviors. In this way, the behavioral excess is weakened and the client is simultaneously learning adaptive, socially approved behaviors.

Behaviors that are labeled as inappropriate because of their place of occurrence may be treated using stimulus-discrimination training. This involves teaching the client to express a behavior in the presence of some stimuli and not express the behavior in the presence of other stimuli. For a preschooler who takes his clothes off in a variety of public and private places, discrimination training might involve praising the child when he removes his clothes in his bedroom or the bathroom and using extinction or punishment when clothing removal occurs in other settings. Verbal explanation of the differential contingencies also helps the client learn discrimination.

Perspective and Prospects

Operant conditioning therapies evolved from the laboratory research of B. F. Skinner. In 1938, Skinner published *The Behavior of Organisms*, which outlined the basic principles of operant conditioning that Skinner had derived from the experimental study of the effects of environmental consequences on the lever-pressing behavior of rats. This work stimulated other psychologists to analyze

operant behavior in many animal species.

Most early studies with human subjects were designed to replicate and extend this animal research, and they served to demonstrate that operant techniques exerted similar control over human behavior. A literature of operant principles and theory began to accumulate, and researchers referred to this approach to learning as the experimental analysis of behavior.

Some of these human demonstrations were conducted in institutional settings with patients who had not responded well to traditional treatment approaches. The results of such studies suggested that operant procedures could have therapeutic value. In 1959, Teodoro Ayllon and Jack Michael described how staff members could use reinforcement principles to modify the maladaptive behaviors of psychiatric patients. In the 1960's, Sidney Bijou pioneered the use of operant procedures with mentally retarded children and Ivar Lovaas developed an operant program for autistic children.

The 1960's also saw applications in noninstitutional settings. Operant techniques were introduced into school classrooms, university teaching, programs for delinquent youth, marriage counseling, and parent training. Universities began to offer coursework and graduate training programs in the application of operant principles. By the late 1960's, the operant orientation in behavior therapy became known by the terms "behavior modification" and "applied behavior analysis."

During the 1970's, many large-scale applications were instituted. Psychiatric hospitals, schools, prisons, and business organizations began to apply operant principles systematically to improve the performances of large groups of individuals. Another important trend that began in the 1970's was an interest in the self-modification of problem behaviors. Numerous books offered self-training in operant procedures to deal with difficulties in such areas as smoking, drug abuse, nervous habits, stress management, sexual dysfunction, time management, and weight control.

Since the 1980's, operant conditioning therapies have become an integral component of behavioral medicine. Reinforcement techniques are being used in the treatment of chronic pain, eating and sleeping disorders, cardiovascular disorders, and neuromuscular disorders. Operant procedures are also effective in teaching patients adherence to medical instructions and how to make healthy lifestyle changes.

Behavior modifiers continue to direct attention toward public safety and improvement of the physical environment. Therapists are evaluating the effectiveness of operant procedures to combat crime, reduce traffic accidents, and increase the use of seat belts, car pools, and public transportation. Programs are being designed to encourage energy conservation and waste recycling.

Throughout the history of its development, behavior modification has emphasized the use of operant conditioning principles to improve the quality of life for individuals and for society as a whole. Behavior therapists actively support efforts to educate the public in the ethical use of operant techniques for social betterment.

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Linda J. Palm

See also:

Abnormality: Behavioral Models; Aversion, Implosion, and Systematic Desensitization Therapies; Behavioral Family Therapy; Cognitive Behavior Therapy; Modeling Therapies.

Paranoia

Type of psychology: Psychopathology
Fields of study: Personality disorders; schizophrenias

Paranoia is a pervasive distrust and suspiciousness of others and a tendency to interpret others' motives as malevolent.

Principal terms

DELUSION: a faulty belief involving the misinterpretations of events

ELECTROCONVULSIVE THERAPY: the use of electric shocks to induce seizure as a form of treatment

PARANOID SCHIZOPHRENIA: a chronic mental disorder characterized by delusions and auditory hallucinations

PERSONALITY DISORDER: a disorder in which personality traits are rigid and maladaptive and produce considerable impairment or distress for the individual

PHARMACOTHERAPY: the use of drugs for treatment

PROJECTION: a defense mechanism involving the attribution of aggressive and or sexual feelings to others or to the outside world in order to avoid guilt or anxiety

Causes and Symptoms

Paranoia is characterized by suspiciousness, heightened self-awareness, self-reference, projection of one's ideas onto others, expectations of persecution, and blaming of others for one's difficulties. Conversely, though paranoia can be problematic, it can also be adaptive. In threatening or dangerous situations, paranoia might instigate proactive protective behavior, allowing an individual to negotiate a situation without harm. Thus, paranoia must be assessed in context for it to be understood fully.

Paranoia can be experienced at varying levels of intensity in both normal and highly disordered individuals. As a medical problem, paranoia may take the face of a symptom, personality problem, or chronic mental disorder. As a symptom, it may be evidenced as a fleeting problem; an individual might have paranoid feelings that dissipate in a relatively brief period of time once an acute medical or situational problem is rectified.

As a personality problem, paranoia creates significant impairment and distress as a result of inflexible, maladaptive, and persistent use of paranoid coping strategies. Paranoid individuals often have preoccupations about loyalties, overinterpret situations, maintain expectations of exploitation or deceit, rarely confide in others, bear grudges, perceive attacks that are not apparent to others, and maintain unjustified suspicions about their relationship partner's potential for betrayal. They are prone to angry outbursts, aloof, and controlling, and they may demonstrate a tendency toward vengeful fantasies or actual revenge.

Finally, paranoia may be evidenced as a chronic mental disorder, most notably as the paranoid type of schizophrenia. In paranoid schizophrenia, there is a

tendency toward delusions (faulty beliefs involving misinterpretations of events) and auditory hallucinations. Additionally, everyday behavior, speech, and emotional responsiveness are not as disturbed as in other variants of schizophrenia. Typically, these individuals are seen by others as anxious, angry, and aloof. Their delusions usually reflect fears of persecution or hopes for greatness, resulting in jealousies, odd religious beliefs (such as persecution by God, thinking they are Jesus Christ), or preoccupations with their own health (such as the fear of being poisoned or of having a medical disorder of mysterious origin).

Paranoia may best be understood as being determined by a combination of biological, psychological, and environmental factors. It is likely, for example, that certain basic psychological tendencies must be present for an individual to display paranoid feelings and behavior when under stress, as opposed to other feelings such as depression. Additionally, it is likely that certain physical predispositions must be present for stressors to provoke a psychophysiological response.

Biologically, there are myriad physical and mental health conditions that may trigger acute and more chronic paranoid reactions. High levels of situational stress, drug intoxication (such as with amphetamines or marijuana), drug withdrawal, depression, head injuries, organic brain syndromes, pernicious anemia, B vitamin deficiencies, and Klinefelter's syndrome may be related to acute paranoia. Similarly, certain cancers, insidious organic brain syndromes, and hyperparathyroidism have been related to recurrent or chronic episodes of paranoia.

In terms of the etiology of chronic paranoid conditions, such as paranoid schizophrenia and paranoid personality disorder, no clear causes have been identified. Some evidence points to a genetic component; the results of studies on twins and the greater prevalence of these disorders in some families support this view. More psychological theories highlight the family environment and emotional expression, childhood abuse, and stress. In general, these theories point to conditions contributing toward making a person feel insecure, tense, hungry for recognition, and hypervigilant. Additionally, the impact of social, cultural, and economic conditions contributing to the expression of paranoia is important. Paranoia cannot be interpreted out of context. Biological, psychological, and environmental factors must be considered in the development and maintenance of paranoia.

Treatment and Therapy

Three major types of therapies are available to treat paranoia: pharmacotherapies, community-based therapies, and cognitive behavioral therapies. For acute paranoia problems and the management of more chronic, schizophrenia-related paranoia, pharmacotherapy (the use of drugs) is the treatment of choice. Drugs that serve to tranquilize the individual and reduce disorganized thinking, such as phenothiazines and other neuroleptics, are commonly used. With elderly people who cannot tolerate such drugs, electroconvulsive therapy (ECT) has been used for treatment.

Community-based treatment, such as day treatment or in-patient treatment, is also useful for treating chronic paranoid conditions. Developing corrective and instructional social experiences, decreasing situational stress, and helping individuals to feel safe in a treatment environment are primary goals.

Finally, cognitive behavioral therapies focused on identifying irrational beliefs contributing to paranoia-related problems have demonstrated some utility. Skillful therapists help to identify maladaptive thinking while unearthing concerns but not agreeing with the individual's delusional ideas.

Perspective and Prospects

Certain life phases and social and cultural contexts influence behaviors that could be labeled as paranoid. Membership in certain minority or ethnic groups, immigrant or political refugee status, and more generally, language and other cultural barriers may account for behavior that appears to be guarded or paranoid. As such, one can make few assumptions about paranoia without a thorough assessment.

Clinically significant paranoia is notable across cultures, with prevalence rates at any point in time ranging from 0.5 to 2.5 percent of the population. It is a problem manifested by diverse etiological courses requiring equally diverse treatments. Increased knowledge about the relationship among paranoia, depression and other mood disorders, schizophrenia, and the increased prevalence of paranoid disorders in some families will be critical. As the general population ages, a better understanding of more acute paranoid disorders related to medical problems will also be necessary. Better understanding will facilitate the development of more effective pharmacological and nonpharmacological treatments that can be tolerated by the elderly and others suffering from compromising medical problems.

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Nancy A. Piotrowski

See also:

Anxiety Disorders; Cognitive Behavior Therapy; Cognitive Therapy; Neurosis; Schizophrenia.

PERSON-CENTERED THERAPY

Type of psychology: Psychotherapy
Fields of study: Humanistic therapies

Person-centered therapy is based on a philosophy that emphasizes an inherent human tendency for growth and self-actualization. Psychologist Carl Rogers developed and described person-centered therapy as a "way of being."

Principal terms

CONGRUENCE: the consistency or correspondence among thoughts, experience, and behavior

EMPATHY: the focusing of the therapist's attention on the needs and experience of the client; also refers to the therapist's ability to communicate an understanding of the client's emotional state

GENUINENESS: a characteristic in which the therapist does not act out a professional role but instead acts congruently with his or her own sensory and emotional experience

PHENOMENOLOGY: a method of exploration in which subjective and/or experiential data are accepted without any need for further analysis

SELF: an existing picture of oneself; perceptions of "I" or "me" either in relationships with others or by oneself

SELF-ACTUALIZATION: a biologically and culturally determined process involving a tendency toward growth and full realization of one's potential

UNCONDITIONAL POSITIVE REGARD: the attempt by a therapist to convey to a client that he or she genuinely cares for the client

Overview

Psychologist Carl R. Rogers (1902-1987) was the leading figure in the development of phenomenological therapy, and his name has been used synonymously ("Rogerian" therapy) with person-centered therapy. Phenomenological theory is a method of exploration that emphasizes all aspects of human experience. In particular, it highlights the importance of an individual's creative power, in addition to genetics and environment. Moreover, this theory focuses primarily on a person's subjective experience (opinions, viewpoints, and understandings) and defines therapy on the basis of a good human-to-human relationship.

Rogers remained primarily concerned with the conditions for personal growth rather than with the development of personality theory; he focused on personality functioning rather than on personality structures. He did, however, offer formal conceptions of personality. The central concepts and key formulations of person-centered therapy were published in Rogers's *Counseling and Psychotherapy: Newer Concepts in Practice* (1942), *On Becoming a Person* (1961), and his

landmark book *Client-Centered Therapy* (1951). Rogers presented nineteen propositions about personality development. These propositions included the following concepts: Each individual exists in a continually changing world in which he or she is the center. Individuals react to the world as they experience and perceive it; thus, "reality" is defined by the person's phenomenal field. Behavior is basically the goal-directed attempt of the organism to satisfy its needs as experienced in the phenomenal field. Each individual has a unique perspective—his or her own private world—and to comprehend a person one must assume a frame of reference from the person's perspective. Emotion facilitates goal-directed behavior. The structure of the self is formed as a result of evaluative interactions with others; the self is an organized, fluid, yet consistent pattern of perceptions about oneself.

The phenomenal field refers to everything experienced by an individual at any given time. The term "internal frame of reference" refers to the process by which therapists attempt to perceive clients' experiences and "reality" as closely as they can. An individual's reality is essentially that which the person perceives. Moreover, it is the person's subjective experience and perceptions that shape the person's understanding of reality and guide behavior. Events are significant for an individual if the individual experiences them as meaningful. In treatment, therapists strive to understand clients by understanding their views of themselves and the environment in which they live.

A central concept within phenomenological theory is the "self" (a structure derived from experiences involving one's own body or resulting from one's own actions). The self (or self-concept), then, is a self-picture or self-awareness. It is a changing process that incorporates the individual's meaning when he or she refers to the characteristics of "I" or "me" in isolation or in relationships with others. The concept of self is also considered to be an organized, consistent, and learned attribute composed of thoughts about self. Rogers views the need for positive regard to be universal. The self-concept depends, in large part, on the "conditions of worth" that a child has learned through interactions with significant others. According to Rogers, the child's need to maintain the love of parents inevitably results in conflict with his or her own needs and desires. For example, as young children assert greater autonomy, a growing awareness of individuality and uniqueness follows. Quite often, the young child demonstrates a negativistic pattern wherein conflicts become more common as the child's needs are in conflict with parent desires.

Maladjustment occurs when there is a lack of consistency between one's concept of self and one's sensory and visceral experiences. If the self-concept is based on many conditions of worth and includes components of failure, imperfection, and weakness, then a lack of positive self-regard will be evident. When such incongruence occurs, individuals are viewed as being vulnerable to psychological problems. Of particular importance is self-esteem (feelings about self), which is often negative or problematic in clients. Poor self-esteem occurs when the phenomenal self is threatened. A threat for one person is not necessarily a threat for another. A person will experience threat whenever he or she perceives that the phenomenal self is in danger. For example, if a well-adjusted athlete misses the

final shot at the buzzer in a close basketball game, he or she will not blame the referees or claim physical illness, but instead will examine this experience and perhaps revise his or her self-concept.

Other key principles that underlie person-centered theory involve the processes of self-direction and self-actualization. According to Rogers, humans have an innate tendency to maintain and enhance the self. In fact, all needs can be summarized as the urge to enhance the phenomenal self. Although the process of self-actualization may become disrupted by a variety of social, interpersonal, and cultural factors (determined in large part by the actions of parents, teachers, and peers), Rogers states that the positive growth tendency will ultimately prevail. This actualizing tendency is what produces the forward movement of life, the primary force upon which therapists rely heavily in therapy with clients. Self-actualization refers to the concept that unhampered individuals strive to actualize, enhance, and reach their full potential.

Via self-actualization, a person becomes a fully functioning individual. The qualities of a fully functioning person include being open to experience all feelings while being afraid of none; demonstrating creativity and individual expression; living in the present without preoccupation with past or future; being free to make choices and act on those choices spontaneously; trusting oneself and human nature; having an internal source of evaluation; demonstrating balance and realistic expressions of anger, aggression, and affection; exhibiting congruence between one's feelings and experience; and showing a willingness to continue to grow.

"Congruence" is the term used by Rogers and others to imply the correspondence between awareness and experience. If a client is able to communicate an awareness of feelings that he or she is currently experiencing, the behavior is said to be congruent or integrated. On the other hand, if an individual attempts to communicate a feeling (love, for example) to another person while experiencing incongruence (hostility toward that person), the recipient of that individual's expression of feelings may experience an awareness of miscommunication.

Person-centered theory and therapy have evolved since the 1940's. When Rogers published *Counseling and Psychotherapy* (1942), the predominant view among mental health professionals was that the therapist should act as an expert who directs the course of treatment. Rogers, however, described counseling as a relationship in which warmth, responsiveness, and freedom from coercion and pressure (including pressure from the therapist) are essential. Such an approach to treatment emphasized the client's ability to take positive steps toward personal growth. This phase, from 1940 to 1950, has been referred to as Rogers's nondirective period. The second phase, reflective psychotherapy, spanned the years from 1950 to 1957. During this period, Rogers changed the name of his approach to "client-centered counseling" and emphasized the importance of reflecting (paraphrasing, summarizing, and clarifying) the client's underlying feelings.

The third phase, experiential psychotherapy, has been described as lasting from 1957 to 1970. During this phase, Rogers focused on the conditions that would be necessary and sufficient for change to occur. Results of his studies demonstrated that the most successful clients were those who experienced the highest degree of

accurate empathy, and that client ratings, rather than therapist ratings, of the quality of the therapeutic relationship were most closely associated with eventual success or failure. Also evident during this phase of development was his de-emphasis of psychotherapy techniques, such as reflection. Instead, Rogers focused more on the importance of basic therapist attitudes. By so doing, a wider range of therapist behaviors was encouraged in order to establish the essential relationship components of empathy, positive regard, and congruence. Therapists were encouraged to attend to their own experiences in the session and express their immediate feelings in the therapy relationship.

In 1974, Rogers changed the name of his approach to person-centered therapy. Rogers believed that person-centered therapy more appropriately described the human values that his approach incorporates. Since the 1970's, an additional phase of person-centered therapy, incorporating a more eclectic approach to treatment, has evolved. Specifically, person-centered therapists frequently employ strategies that focus on thoughts, feelings, and values from other schools of psychotherapy within the framework of a productive, accepting relationship. Person-centered approaches have been successfully incorporated into teaching and educational curricula, marriage programs, and international conflict-resolution situations.

Applications

Person-centered therapy aims to increase the congruence, or matching, between self-concept and organismic experience. As Rogers described it, psychotherapy serves to "free up" the already existing capacity in a potentially competent individual, rather than consisting of the expert manipulation of techniques designed to change personality. The primary mechanism for reintegration of self and experience is the interpersonal relationship between therapist and client. In fact, the therapeutic relationship is viewed as being of primary importance in promoting healing and growth. Thus, it is this relationship in and of itself that produces growth in the client. Rogers argues that the process of therapy is synonymous with the experiential relationship between client and therapist; change occurs primarily as a result of the interaction between them.

As described by N. J. Raskin and Rogers (1989), the most fundamental concept in person-centered therapy is trust—that is, trust in clients' growth tendency toward actualization, and trust in clients' ability to achieve their own goals and run their own lives. Similarly, it is important that the therapist be seen as a person in the relationship (not as a role), and that the therapist be appreciated and regarded with trust. Rogers stated that clients enter treatment in a state of incongruence, often resulting in vulnerability and anxiety. For treatment to be effective, he identified three necessary and sufficient ingredients for constructive change: The counselor experiences empathic understanding of the client's internal frame of reference, the counselor experiences unconditional positive regard for the client, and the counselor acts congruently with his or her own experience, becoming genuinely integrated into the relationship with the client. It is also essential to the therapy process that the counselor succeed in communicating unconditional positive regard, genuineness, and empathic understanding to the client.

Of particular importance is empathy. Empathy reflects an attitude of interest in the client's thoughts, feelings, and experiences. Moreover, Rogers describes empathy as "a way of being" that is powerfully curative because of its nonevaluative and accepting quality. In fact, the process of conveying accurate empathic understanding has been described as the most important aspect of the therapeutic endeavor. Therapists who convey this form of sensitivity to the needs, feelings, and circumstances of the client can in essence climb inside the client's subjective experience and attempt to understand the world as he or she does. Empathy facilitates a process through which clients assume a caring attitude toward themselves. Moreover, empathy allows clients to gain a greater understanding of their own organismic experiencing, which in turn, facilitates positive self-regard and a more accurate self-concept.

In perhaps all of their previous relationships, clients have learned that acceptance is conditional upon acting in an acceptable manner. For example, parents typically accept children if they do as they are told. In therapy, however, Rogers argued that no conditions of worth should be present. Acceptance of the client as a fallible yet essentially trustworthy individual is given without ulterior motives, hidden causes, or subtle disclaimers. The primary challenge of the therapist's unconditional positive regard comes with clients whose behavior and attitude run strongly counter to the therapist's beliefs. A sex offender, an abusive parent, or a lazy client can test a therapist's level of tolerance and acceptance. Rogers's position is that every individual is worthy of unconditional positive regard.

Genuineness refers to the characteristic of being congruent—the experience of therapists who appropriately express the behavior, feelings, and attitudes that the client stimulates in them. For example, a person does not laugh when sad or angry. Similarly, acting congruently with one's own emotional experience does not mean hiding behind a mask of calm when a client makes upsetting statements. Rogers believed that, in the long run, clients would respond best to a "real person" who is dedicated to the client's welfare and acts in an honest and congruent manner.

In person-centered treatment, sessions are usually scheduled once or twice a week. Additional sessions and telephone calls are typically discouraged in order to avoid dependency on the therapist that will stifle personal growth. Rogers has described the general process of therapy as involving a series of seven steps. Step one is an initial unwillingness to reveal self and an avoidance of feelings; close relationships may be perceived as threatening or dangerous. In step two, feelings are described briefly, but the person is still distant from his or her own personal experience and externalizes issues; the person begins to show recognition that conflicts and difficulties exist. In step three, describing past feelings becomes unacceptable; there is more self-disclosure and expression, and the client begins to question the validity of his or her constructs and beliefs.

Step four involves the description of personal feelings as owned by the self and a limited recognition that previously denied feelings may exist; there is an increasing expression of self-responsibility. Step five involves the free expression and acceptance of one's feelings, an awareness of previously denied feelings, a recognition of conflicts between intellectual and emotional processes, and a desire to be

who one really is. In step six, there is an acceptance of feelings without the need for denial and a willingness to risk being oneself in relationships with others. In step seven, the person is comfortable with his or her self, is aware of new feelings and experiences, and experiences minimal incongruence.

Perspective and Prospects

As Carl Rogers began his career during the late 1930's, psychoanalysis was the primary approach to psychotherapy and the dominant model in personality theory. Though Rogers was subjected to traditional psychoanalytic influences, his perspective was nearly the exact opposite of Sigmund Freud's theory; Rogers tended to reject the notion of unconscious processes. Instead, he was strongly influenced by the therapeutic approach of psychoanalyst Otto Rank (and his followers at the University of Pennsylvania School of Social Work), the relationship therapy of social worker Jessie Taft, and the feeling-focused approach of social worker Elizabeth Davis. Rank believed that clients benefit from the opportunity to express themselves in session, exhibit creativity in treatment, and even dominate the therapist. Taft emphasized that there are key components to the therapeutic relationship (including a permissive therapeutic environment and a positive working relationship between the therapist and client) which are more important than psychoanalytic explanations of the client's problems. Davis focused almost exclusively on the feelings being expressed in treatment by her clients. From his association with Davis, Rogers developed the therapy component referred to as reflection of feelings. Rogers believed strongly that no individual has the right to run another person's life. Thus, his therapeutic approach was generally permissive and accepting, and he generally refused to give advice to clients.

Person-centered approaches have made major contributions to therapy, theory, and empirical research. In fact, Rogers was responsible for the first systematic investigations of the therapeutic process. He was the first to employ recordings of therapy sessions to study the interactive process and to investigate its effectiveness. Although the use of such recordings is now commonplace in most training programs, Rogers's willingness to open his approach to such scrutiny was unusual for its time.

Person-centered therapy has generated numerous research contributions. A 1971 review of research on "necessary and sufficient" conditions concluded that counselors who are accurately empathic, genuine, and nonpossessively warm tend to be effective with a broad spectrum of clients regardless of the counselors' training or theoretical orientation. The authors also concluded that clients receiving low levels of such conditions in treatment showed deterioration. Many researchers have questioned the "necessary and sufficient" argument proposed by Rogers, however; they suggest that the therapeutic conditions specified by Rogers are neither necessary nor sufficient, although such therapeutic approaches are facilitative.

Although Rogers's approach was developed primarily for counseling clients, the person-centered approach has found many other applications. Person-centered approaches are frequently used in human relations training, including paraprofessional counselors, Young Women's Christian Association (YWCA) and Young

Men's Christian Association (YMCA) volunteers, crisis center volunteers, Peace Corps and VISTA workers, and charitable organization workers. Small group therapy programs and personal growth groups also make frequent use of person-centered approaches.

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Gregory L. Wilson

See also:

Abnormality: Behavioral Models; Abnormality: Cognitive Models; Abnormality: Humanistic-Existential Models; Abnormality: Psychodynamic Models; Analytical Psychotherapy; Cognitive Behavior Therapy; Cognitive Therapy; Psychoanalysis; Psychotherapy: Goals and Techniques.

PERSONALITY
Psychophysiological Measures

Type of psychology: Personality
Fields of study: Personality assessment

Psychophysiological studies comparing individuals with different personality traits have sought to determine the physical characteristics of particular behavioral characteristics. Such research can provide information that helps clarify the importance of various personality types with regard to risk of psychological and physical disorders.

Principal terms

ANXIETY SENSITIVITY: the tendency to fear sensations associated with anxiety because of beliefs that anxiety may cause illness, embarrassment, or additional anxiety

HARDINESS: a constellation of behaviors and perceptions thought to buffer the effects of stress; characterized by perceptions of control, commitment, and challenge

LOCUS OF CONTROL: individual perception of the world and evaluation of the amount of control the individual has over his or her own successes and failures

PERSONALITY: a relatively enduring set of behaviors that characterize the individual

PSYCHOPHYSIOLOGY: the scientific study of cognitive, emotional, and behavioral phenomena as related to and revealed through physiological principles and events

TYPE A BEHAVIOR PATTERN: a constellation of behaviors—competitiveness, time urgency, and hostility—thought to place the individual at risk for disease, particularly heart disease

Overview

A broad definition of personality typically includes the dimensions of stability, determinism, and uniqueness. That is, personality changes little over time, is determined by internal processes and external factors, and reflects an individual's distinctive qualities. Personality also can be thought of as unique, relatively stable patterns of behavior, multiply determined over the course of an individual's life. There are many theories for understanding the development of these patterns of behavior.

Twin studies have provided evidence that biological factors help to shape personality; such studies support Hans Eysenck's theory that personality is inherited. The psychodynamic perspective holds that personality is determined primarily by early childhood experiences. Some of the most influential contributions to this perspective came from Sigmund Freud. He argued that unconscious forces govern behavior and that childhood experiences strongly shape adult personality via coping strategies people use to deal with sexual urges. B. F. Skinner, founder of modern behavioral psychology, assumed that personality (or behavior) is deter-

mined solely by environmental factors. More specifically, he believed that consequences of behavior are instrumental in the development of unique, relatively stable patterns of behavior in individuals. According to Albert Bandura's social learning perspective, models have a great impact on personality development. That is, patterns of behavior in individuals are influenced by the observation of others. Finally, the humanistic perspective of Carl Rogers suggests that personality is largely determined by the individual's unique perception of reality in comparison to his or her self-concept.

Assessment of personality can be accomplished from three domains: subjective experience, behavior, and physiology. Traditional means for assessing personality have included objective and projective paper-and-pencil or interview measurements that tap the domain of subjective experience. Behavioral assessment techniques such as direct observation of behavior, self-monitoring (having the individual record occurrences of his or her own behavior), self-report questionnaires, role-play scenarios, and behavioral avoidance tests (systematic, controlled determination of how close an individual can approach a feared object or situation) tap the domains of subjective experience and objective behavior. These techniques have been used in clinical settings to aid in the diagnosis and treatment of deviant or abnormal behavior patterns.

Although psychophysiological measurement of personality has not gained popular use in clinical settings, it complements the techniques mentioned above and contributes to understanding the nature and development of psychological and physical disorders. Just as patterns of responding on traditional personality tests can indicate the possibility of aberrant behavior, so too can tests of physiological patterns. Typical measures taken during this type of assessment include heart rate, blood pressure, muscle tension (measured via electromyography), brain-wave activity (measured via electroencephalography), skin temperature, and palmar sweat gland or electrodermal activity. These measures of physiological activity are sensitive to "emotional" responses to various stimuli and have been instrumental in clarifying the nature of certain psychological and physical conditions. One of the fundamental assumptions of psychophysiology is that the responses of the body can help reveal the mechanisms underlying human behavior and personality.

Physiological responsivity can be assessed in a number of different ways. Two primary methodologies are used in the study of the relations between personality and physiology. The first method simply looks at resting or baseline differences of various physiological measures across individuals who either possess or do not possess the personality characteristic of interest. The second method also assesses individuals with or without the characteristic of interest, but does this under specific stimulus or situational conditions rather than during rest. This is often referred to as measuring reactivity to the stimulus or situational condition. Resting physiological measures are referred to as tonic activity (activity evident in the absence of any known stimulus event). It is postulated that tonic activity is relatively enduring and stable within the individual while at rest, although it can be influenced by external factors. It is both of interest in its own right and important in determining the magnitude of response to a stimulus. On the other hand, phasic

activity is a discrete response to a specific stimulus. This type of activity is suspected to be influenced to a much greater extent by external factors and tends to be less stable than tonic activity. Both types of activity, tonic and phasic, are important in the study of personality and physiology.

Standard laboratory procedures are typically employed to investigate tonic activity and phasic responses to environmental stimuli. For example, a typical assessment incorporating both methodologies might include the following phases: a five-minute baseline to collect resting physiological measures, a five-minute presentation of a task or other stimulus suspected to differentiate individuals in each group based on their physiological response or change from baseline, and a five-minute recovery to assess the nature and rate of physiological recovery from the task or stimulus condition. Investigations focusing on the last phase attempt to understand variations in recovery as a response pattern in certain individuals. For example, highly anxious individuals tend to take much longer to recover physiologically from stimulus presentations that influence heart rate and electrodermal activity than individuals who report low levels of anxiety.

Studies of physiological habituation—the decline or disappearance of response to a discrete stimulus—also have been used to investigate personality differences. Physiological responses to a standard tone, for example, eventually disappear with repeated presentations of the tone. The rate at which they disappear varies across individuals; the disappearance generally takes longer in individuals who tend to be anxious. Thus, individuals who tend to have anxious traits may be more physiologically responsive, recover from the response less rapidly, and habituate to repeated stimulation more slowly than those who tend to be less anxious. Such physiological differences may be an important characteristic that determines anxious behavior and/or results from subjective feelings of anxiousness.

Applications

Research has demonstrated that there is considerable variability across individuals in their physiological response patterns, both at rest and in response to various situational stimuli or laboratory manipulations. Evidence indicates that part of this variability across individuals may in some cases be attributable to certain personality traits or characteristic patterns of behavior. Furthermore, research suggests that these personality traits may also be related to the development of psychological or physical disorders. Although the causal links are not well understood, a growing body of research points to relations among personality, physiological measures, and psychopathology/health.

Examples of these relationships are evident in the field of psychopathology, or the study of abnormal behavior. Hans Eysenck proposed that the general characteristics of introversion and extroversion lead individuals to interact very differently with their environment. Some psychophysiological studies support this notion and suggest that the behaviors characteristic of these traits may be driven by physiological differences. Anxiety sensitivity and locus of control are two personality traits that some suggest are related to the development of anxiety disorders and depression, respectively. To varying degrees, anxiety disorders and

depression have been investigated in the psychophysiology laboratory and have been found to differentiate individuals with high and low levels of the personality trait, based on their physiological responses.

Introversion describes the tendency to minimize interaction with the environment; extroversion is characterized by the opposite behaviors, or the tendency to interact more with the environment. Eysenck proposed that such traits reflect physiological differences that are genetically determined and reflected in the individual's physiology. Introverted individuals are thought to be chronically physiologically hyperaroused and thus seek to minimize their arousal by minimizing external stimulation. Extroverted individuals are believed to be chronically physiologically underaroused and thus seek a more optimal level of arousal through increased environmental stimulation. It should be easy to confirm or disprove such a theory with psychophysiological studies of resting physiological activity in introverts and extroverts. Electroencephalograph (EEG) studies have produced contradictory evidence about the validity of Eysenck's theory, however; problems in EEG methodology, experimental design, and measurement of the traits themselves have led to considerable confusion about whether the traits actually do have a physiological basis.

Anxiety sensitivity describes the tendency for individuals to fear sensations they associate with anxiety because of beliefs that anxiety may result in harmful consequences. Research in the development and assessment of this construct was pioneered by Steven Reiss and his associates in the late 1980's. They developed a sixteen-item questionnaire, the Anxiety Sensitivity Index (ASI), to measure anxiety sensitivity and found it to be both reliable and valid. Anxiety sensitivity has been most closely related to panic disorder, an anxiety disorder characterized by frequent, incapacitating episodes of extreme fear or discomfort. In fact, as a group, individuals with panic disorder score higher on the ASI than individuals with any other anxiety disorder. Furthermore, some researchers have demonstrated that individuals scoring high on the ASI are five times more likely to develop an anxiety disorder after a three-year follow-up.

Research investigating responses to arithmetic, caffeine, and hyperventilation challenge in the laboratory has demonstrated that individual differences in anxiety sensitivity levels are probably more closely related to the subjective experience of anxiousness than to actual physiological changes. Individuals high and low on anxiety sensitivity, however, have exhibited differential heart-rate reactivity to a mental arithmetic stressor. That is, individuals high on anxiety sensitivity show a greater acceleration in heart rate than individuals low on anxiety sensitivity when engaging in an arithmetic challenge. Individuals scoring high on the ASI also more accurately perceive actual changes in their physiology when compared with their low-scoring counterparts. Such heightened reactivity and sensitivity to physiological change may partially explain how anxiety sensitivity influences the development of anxiety disorders. Individuals high in anxiety sensitivity may be more reactive to environmental threat; therefore, their increased sensitivity may have a physiological basis. They also may be more likely to detect changes in their physiology, which they are then more likely to attribute to threat or danger.

On a more general note, cardiovascular and electrodermal measures can differentiate between anxiety patients and other people at rest. The differences become greater under conditions of stimulation. Delayed habituation rates in anxiety patients are also part of the pattern of physiological overarousal typically seen in individuals with heightened anxiety. Indeed, heightened physiological arousal is one of the hallmark characteristics of anxiety.

Locus of control, made popular by Julian Rotter in the 1960's, refers to individuals' perceptions of whether they have control over what happens to them across situations. This personality construct has been related to the development of depression. Specifically, it is believed that individuals who attribute failures to internal factors (self-blame) and successes to external factors (to other people or to luck) are more susceptible to developing feelings of helplessness, often followed by despair and depression. Locus of control also is hypothesized to have implications in the management of chronic health-related problems.

In oversimplified categorizations, individuals are labeled to have an "internal" or "external" locus of control. "External" individuals, who believe they have little control over what happens to them, are said to be more reactive to threat, more emotionally labile, more hostile, and lower in self-esteem and self-control. Psychophysiological assessment studies have revealed heart-rate acceleration and longer electrodermal habituation for "externals" in response to the presentation of tones under passive conditions. When faced with no-control conditions in stress situations such as inescapable shock, "internals" show elevated physiological arousal, while findings for "externals" are mixed. Thus, the locus of control has varying effects on physiology, depending on the circumstances. Such effects may play a role in psychological disorders such as depression and anxiety. Heightened physiological reactivity may also inhibit recovery from acute illness or affect the course of chronic health problems such as hypertension.

In addition to the relevance of personality to physiological reactivity and psychopathology, research has demonstrated that certain personality types may be risk factors or serve protective functions with regard to physical health. Type A behavior pattern and hardiness are two examples. Type A behavior pattern is characterized by competitiveness, time urgency, and hostility. It has been identified as a potential risk factor for the development of coronary heart disease. Psychophysiological studies have suggested that, under certain laboratory conditions, males who exhibit the Type A pattern are more cardiovascularly responsive. This reactivity is the proposed mechanism by which Type A behavior affects the heart. More recent research has suggested that not all components of the Type A pattern are significantly associated with heightened cardiovascular reactivity. Hostility seems to be the most critical factor in determining heightened reactivity. Males who respond to stress with hostility tend to show greater heart-rate and blood-pressure increases than individuals low in hostility. It is unclear whether hostility is a risk factor for heart disease in women.

In contrast to hostility, hardiness is proposed to buffer the effects of stress on physiology. Hardy individuals respond to stressors as challenges and believe that they have control over the impact of stressors. They also feel commitment to their

life, including work and family. Psychophysiological studies have supported the buffering effect of hardiness. Individuals who are more hardy tend to be less physiologically responsive to stressors and to recover from stressors more rapidly. Again, the construct of hardiness seems to be more relevant for males, partially because males have been studied more often.

These studies show that various personality types can be distinguished to varying degrees by psychophysiological measurement. The implications of such findings include possible physiological contributions to the development of various psychological problems, and personality contributions to the development or course of physical disease.

Perspective and Prospects

Although the sophisticated techniques and instruments that have enabled psychologists to study physiological events were not developed until the twentieth century, the notion that physiology and psychology (body and mind) are linked dates back as far as ancient Greece. Hippocrates, for example, described four bodily humors or fluids thought to influence various psychological states such as melancholy and mania. Although the link between mind and body has received varying degrees of importance in scientific thinking across the centuries, it regained prominence in the mid-1900's with the development of the field of psychosomatic medicine along with the widespread influence of Sigmund Freud's theories of personality. Psychosomatic medicine embraced the notion that personality and physiology are intertwined. Psychosomatic theorists believed that certain diseases, such as diabetes, asthma, and hypertension, were associated with particular personality characteristics. They suggested that personality influenced the development of specific diseases. Although much of this theorizing has been disproved, these theorists did return the focus to investigating the interactive nature of a person's psychological and physiological makeup.

Psychophysiologists acknowledge the influence of personality characteristics on physiology and vice versa, and they are working to characterize these relationships. Future work will better measure particular personality constructs and will clarify the interaction of gender with personality and physiology. Psychophysiologists also must be concerned with the external validity of the data they obtain in the laboratory. It has not been satisfactorily demonstrated that physiological responses measured in a given individual in the laboratory are at all related to that individual's response in the natural environment. Thus, in order to establish fully the usefulness of laboratory findings, psychophysiologists must also study individuals in their natural environments. Recent technological advances will enable ongoing physiological measurement, which should achieve this goal and further establish the relations among personality, physiology, and behavior.

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See also:

Abnormality: Behavioral Models; Addictive Personality and Behaviors; Antisocial Personality; Behavioral Assessment and Personality Rating Scales; Borderline, Histrionic, and Narcissistic Personalities; Codependent Personality; Projective Personality Traits; Type A Behavior Pattern.

PHOBIAS

Type of psychology: Psychopathology
Fields of study: Anxiety disorders

Phobias are excessive fears of certain objects, people, places, or situations.

Principal terms

AGORAPHOBIA: a flight reaction caused by the fear of places and predicaments outside a sphere of safety

DESENSITIZATION: a behavioral technique of gradually removing anxiety associated with certain situations by associating them with a relaxed state

SIMPLE PHOBIAS: fears directed toward specific things, animals, phenomena, or situations

SOCIAL PHOBIAS: fears of being watched or judged by others in social settings

Causes and Symptoms

Phobias can induce a state of anxiety or panic, often debilitating sufferers, restricting them from full freedom of action, career progress, or sociability. For example, a heterosexual person who fears talking with the opposite sex will have problems dating and progressing socially.

Phobias are caused by perceived dangerous experiences, both real and imagined. Sometimes, it is gradual: A worker may develop anxiety reactions to a boss over several weeks. Likewise, a single moment of terror can cause a lifetime of avoidance: A dog attack can generate cynophobia (fear of dogs) in a child. Children are especially susceptible to phobias, most of which are caused by fear of injury. The death of a close relative is difficult for children to understand and requires a delicate, sensitive, and honest explanation. Questions and expressions of feelings (often resentment) by the child should be encouraged and discussed. It is repression, unanswered questions, lack of supportive people, and guilt feelings that can lead to morbid attitudes and fantasies, by which phobias develop. Experiences in the past and associated fears remain dormant, to recur and be relived.

Anticipatory fears can also cause phobias. Driving trainees and beginning drivers often have phobic reactions, dreading possible accidents. Students, often the best or most conscientious ones, may spend sleepless nights worrying about the next day's examination. They fear experiences that may never occur, irrationally magnifying the consequences of their performance to one of absolute success or utter doom. Concentration produces positive results (that is, good grades), but obsession may cause paralyzing fear and pressure, even suicide. Several other theories exist regarding the cause of phobias.

Phobias can be classified into three primary groupings: simple phobias, social phobias, and agoraphobia. Simple phobias are directed toward specific things, animals, phenomena, or situations. Rodents, cats, dogs, and birds are common objects of fear. A swooping gull or pigeon may cause panic. Insects, spiders, and

bugs can provoke revulsion. Many cultures have a fear of snakes. A phobia exists, for example, when a house is inspected several times each day for snakes; a phobic person may vacate a rural home for an urban dwelling in order to avoid them. Blood, diseased people, or hospital patients have caused fainting. Some vegetarians dread meat because of traumatic observations of slaughter. Fear of heights, water, enclosed spaces, and open spaces involve imagined dangers of falling, drowning, feeling trapped, and being lost in oblivion, respectively. These feelings are coupled with a fear of loss of control and harming oneself by entering a dangerous situation. Sometimes, a specific piece of music, building, or person triggers reactions; the initial trauma or conditioning events are not easily remembered or recognized as such.

Possible Symptoms of Social Phobia

- viewing of small mistakes as more exaggerated than they really are
- finding blushing to be painfully embarrassing
- feeling that all eyes are on you
- fear of speaking in public, dating, or talking with persons in authority
- fear of using public restrooms or eating out
- fear of talking on the phone or writing in front of others

Social phobias are fears of being watched or judged by others in social settings. For example, in a restaurant, phobics may eat in rigid, restrictive motions to avoid embarrassments. They may avoid soups, making noises with utensils, or food that requires gnawing for fear of being observed or drawing attention. Many students fear giving speeches because of the humiliation and ridicule resulting from mistakes. Stage fright, dating anxiety, and fear of unemployment, divorce, or other forms of failure are also phobic conditions produced by social goals and expectations. The desire to please others can exact a terrible toll in worry, fear, and sleepless nights.

Agoraphobia is a flight reaction caused by the fear of places and predicaments outside a sphere of safety. This sphere may be home, a familiar person (often a parent), a bed, or a bedroom. Patients retreat from life and remain at home, safe from the outside world and its anticipated perils. They may look out the window and fear the demands and expectations placed on them. They are prisoners of insecurity and doubt, avoiding the responsibilities, risks, and requirements of living. Many children are afraid of school, and some feign illness to remain safely in bed. Facing the responsibilities of maturation causes similar reactions.

Treatment and Therapy

Different schools of psychology espouse different approaches to the treatment of phobias, but central themes involve controlled exposure to the object of fear. Common core fears include fear of dying, fear of going crazy, fear of losing control, fear of failure, and fear of rejection.

The most effective approach to treating these disorders is a cognitive behavioral strategy. With this approach, dysfunctional thinking is identified and changed through collaborative efforts between the patient and therapist. Additional dysfunctional behavior is identified and changed through processes involving conditioning and reinforcement.

Through an initial minimal exposure to the feared object or situation, discussion, and then progressively greater controlled contact, patients experience some stress at each stage but not at a level sufficient to cause a relapse. They will proceed to become desensitized to the object in phases. Therapists may serve as role models at first, demonstrating the steps that patients need to complete, or they may provide positive feedback and guidance. In either case, the role of the patient is active, and gradual exposure occurs. In the process, patients learn to adapt to stress and become more capable of dealing with life.

Other supervised therapies exist, some involving hypnosis, psychoanalysis, drugs, and reasoning out of one's fears. In dealing with phobics, it must be recognized that anyone can have a phobia. Patience, understanding, supportiveness, and professional help are needed. Telling someone simply to "snap out of it" increases stress and guilt.

Perspective and Prospects

Fear serves an important and necessary function in life. It keeps one from putting a hand in a flame or walking into oncoming traffic. The fear of death and the unknown is commonplace; it causes many to dislike, even dread, passing by cemeteries, even though there is no logical reason. While many forms of fear are normal, if they occur out of context, in socially unacceptable manners, too severely, or uncontrollably then the diagnosis is a phobia.

Many different phobias have been cited in the literature and have specific terms in dictionaries, constructed by prefixing the word "phobia" with Greek or Latin terms (such as acrophobia or claustrophobia). While their enumeration is an interesting pastime, phobias are serious conditions and should be treated by professional psychologists.

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See also:

Agoraphobia and Panic Disorders; Anxiety Disorders; Child and Adolescent Psychiatry; Cognitive Behavior Therapy; Neurosis; Psychosomatic Disorders; Stress; Stress: Behavioral and Psychological Responses.

Play Therapy

Type of psychology: Psychotherapy
Fields of study: Humanistic therapies; psychodynamic therapies

Play therapy is a method of treating children who have emotional problems, psychological difficulties, or mental disorders. It is conducted in a room specifically equipped for this purpose with toys and activity materials to aid the child in solving problems and to enhance mental health. It most commonly involves one child and one therapist, though it can be conducted with groups of children.

Principal terms

COMMUNICATION: the sharing of information with other people, either through language or through other ways of interacting

EMPATHY: the ability to figure out how another person feels in certain situations or with different people and to communicate that understanding

INTERPERSONAL MATRIX: the environment and the relationship between two or more people who spend time together, along with all the occurrences within it

LIMIT SETTING: imposing rules or regulations upon another person and then enforcing them in a predictable way

NONDIRECTIVENESS: allowing another person to set the tone and pace of an interaction, as well as letting that person choose the topic and materials to be used

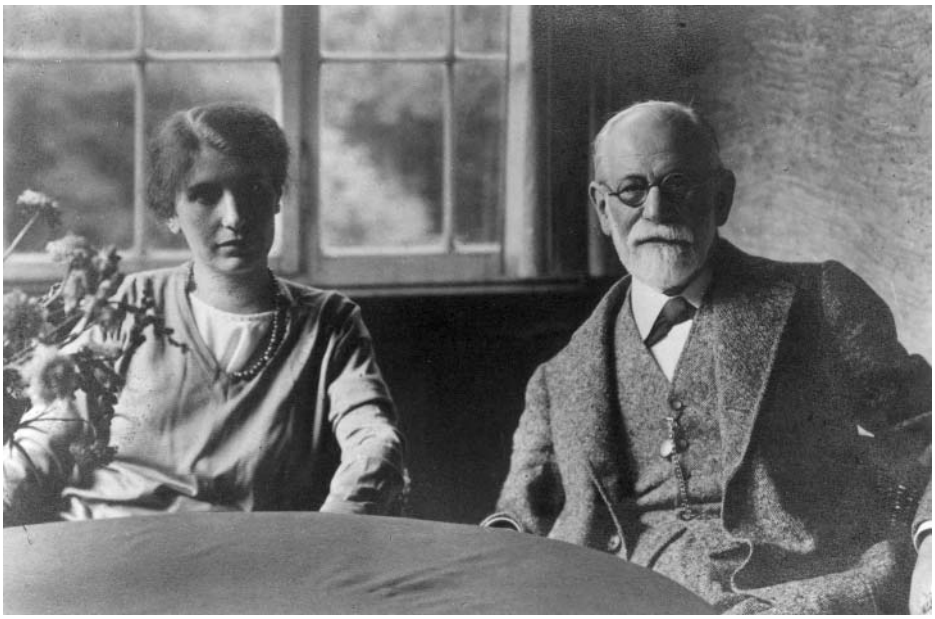
SYMBOLISM: the use of indirect means to express inner needs or feelings; a way of sharing oneself without doing so directly or in words

Overview

Children of all ages learn about their environment, express themselves, and deal with relationships with others through their play activity. Play is an integral part of childhood, an activity that must be allowed to a child to facilitate the child's development. In fact, play is seen as such an important aspect of a child's life that the United Nations made the right to play an inalienable right for children across the world. Some adults have labeled play a child's "work," and this may be an appropriate way of looking at children's play. Just as work fosters self-esteem for adults, so does play enhance the self-esteem of children. Just as adults learn to solve problems through their work, so do children learn to cope with and invent solutions to problems through their play. Just as adults spend a bulk of their time in work activity, so do children spend most of their waking hours engaged in play.

Through play, children grow in a number of ways. First, they grow emotionally; children learn to express their feelings, understand their feelings, and control their emotions. A child may hit a "Bobo" doll in an angry manner, then become very friendly and peaceful. The activity of hitting the doll helped the child act out her or his feeling of anger and then turn to more positive emotions. Through play, children grow cognitively. They learn to count in efforts to master sharing with

other children; they learn about different functions of the same object; they learn that things can break and be repaired; they learn to think in symbols; and they learn language. Children also learn morality. They act out rules and regulations in play with other children; they learn to share; they learn that some things hurt other people and should therefore not be done; and they realize that rules often serve a purpose of protection or safety. All these growth processes are extremely important by-products of play, but perhaps the most important aspect of play is that of communication. Children tell about themselves and their lives through play. Even when they do not yet have the language, they possess the ability to play.



Psychiatrists Anna and Sigmund Freud. Anna Freud developed play therapy methods based on psychoanalytic theories that had been proposed by her famous father. (Library of Congress)

This aspect of communication through play is perhaps the most important ingredient of play therapy. In play therapy, a therapist uses a child's play to understand the child and to help the child solve problems, feel better about herself or himself, and express herself or himself better. Children often have difficulty telling adults what they feel and experience, what they need and want, and what they do not want and do not like. Often they lack the language skills to do so, and sometimes they are too frightened to reveal themselves for fear of punishment.

In play therapy, however, the therapist is an adult who is empathic, sensitive, and—above all—accepting and nonthreatening. The child is made to feel comfortable in the room with this adult and quickly recognizes that this person, despite being quite old (at least from the child's perspective), understands the child and accepts her or his wishes and needs. Children learn to play in the presence of this therapist, or even with the therapist, and through this play communicate with the

therapist. They reveal through their activity what they have experienced in life, how they feel, what they would like to do, and how they feel about themselves.

The toys and activities that therapists use vary significantly, though they take great care to equip the room in which they work with the child in such a way as to allow maximum freedom and creativity on the child's part. Therapists generally have puppets, clay, paints, dolls, dollhouses, and building blocks in the room. All these materials share several important traits: They all foster creativity; they have many different uses; they are safe to play with; and they can be used easily by the child for communication. On the other hand, therapists rarely have things such as board games, Slinkies, or theme toys (for example, television "action" heroes), because these toys have a definite use with certain rules and restrictions, are often used merely to re-create stories observed on television, or are not very handy for getting the child to express herself or himself freely. Most of the time, the toys are kept in an office that is specifically designed for children, not a regular doctor's office. As such, the room generally has a child-size table and chairs but no adult-size desk. It usually has no other furniture but may have some large cushions that child and therapist can sit on if they want to talk for a while. Often the room has a small, low sink for water play, and sometimes even a sandbox. Floor and wall coverings are such that they can be easily cleaned so that spills are not a problem. The room is basically a large play area; children generally like the play therapy room because it is unlike any other room they have ever encountered and because it is equipped specifically with children in mind.

Applications

There are many reasons a child may be seen in play therapy. For example, a referral may come from a teacher who is concerned about a drop in the child's academic performance; from day care personnel who are concerned about the child's inability to relate to other children; from the child's pediatrician, who believes the child is depressed but cannot find a physical cause; or from parents who think the child is aggressive. Whatever the reason, therapy begins with an intake interview. The intake is a session during which the therapist meets not only with the child but also with the parents and siblings in an attempt to find out as much about the child as possible to gain an understanding of what is wrong. Once the therapist knows what is happening with the child, recommendations for treatment are made. Sometimes the recommendation is for the entire family to be seen in family therapy. Sometimes the recommendation is for the parents to be seen. Sometimes the recommendation is for play therapy for the child.

Once a child enters play therapy, she or he will meet with the therapist once weekly for fifty minutes (sometimes, for very young children, sessions can be as short as thirty minutes) for several weeks or months. During the sessions, the child decides what is played with and how, and the therapist is there to understand the child, help the child solve problems, and facilitate growth and self-esteem for the child. Often, while the child is seen, her or his parents are seen in some type of therapy as well. Children's problems often arise because of problems in the family, which is why it is rare that only the child is in treatment. Parents are often seen to

work on their relationship either with each other or with the whole family, or to learn parenting skills.

The first thing that happens in play therapy is that the therapist and the child get to know each other and develop a positive relationship. Once the child begins to trust the therapist, she or he starts to reveal concerns and problems through play. The therapist observes and/or interacts with the child to help work out problems, deal with strong feelings, accept needs, and learn to deal with often difficult family or environmental circumstances. All this work is done through the child's play in much the same way as children use play while growing up. In addition to using play activity, however, the therapist also uses the trusting relationship with the child.

The process of play therapy is best demonstrated by an example of an actual play therapy interaction between a child and therapist. A nine-year-old boy was referred by his teacher because he was very depressed and frightened, had difficulty making friends, and was not able to trust people. In the intake interview, the therapist found out that the boy had been severely physically abused by his father and that he was abandoned by his birth mother at age two. His stepmother had brought three children of her own into the blended family and did not have much time for this child. In fact, it appeared as though he was left to his own devices most of the time. The family had a number of other problems but refused family therapy. Thus, the child was seen in play therapy. He had considerable difficulty starting to trust the therapist and showed this reluctance in his play. He would often start to play, then check with the therapist for approval, and then stop before he became too involved in any one activity. After six weeks, he realized that the therapist was there to help him, and he began to communicate about his family through play.

The following exchange is a good example of what happens in play therapy. One day, the boy picked up a large wooden truck and two small ones. He proceeded to smash the large truck into the small red one over and over. He took the other small truck and put it between the large one and the small red one, as though to protect the red truck from being hit by the large one. In the process, the blue small truck was hurt badly and had to retreat. The boy repeated this activity several times. The therapist picked up a toy truck of her own and drove between the large truck and both of the small trucks, indicating that she had a truck that was tough enough to stop the large truck from hurting the small ones. The child was visibly relieved and turned to another activity.

What had happened? Before the session, the therapist had received a call from the child's social worker, who told her that the night before, the boy's father was caught sexually abusing his four-year-old stepdaughter, who shared this boy's room. The boy had awakened and unsuccessfully tried to stop his father. He ran to a neighbor's house, and this woman called the police. The father was arrested but threatened to get revenge on both children before he was taken away. The boy had playacted this entire scene with the toy trucks. The father was the large truck; the red truck, his sister; the blue one, himself. The relief sensed by the boy after the therapist intervened is understandable, as her truck communicated to the boy that he would be protected from his father.

Perspective and Prospects

Children use their play in play therapy not only to communicate but also to solve problems and deal with overwhelming feelings. How this happens has been explained and described by many different therapists and theorists since play came to be viewed as an acceptable means of conducting therapy in the early 1930's, based upon the work of Melanie Klein and Anna Freud. These women developed play therapy methods that were based upon earlier psychoanalytic theories proposed by Sigmund Freud. In this approach, free play was considered most important, and the therapist did not generally become engaged at all in the child's play. The therapist merely reflected back to the child what was seen and occasionally interpreted to the child what the play may have meant.

In the 1940's, Virginia Axline developed her approach to play therapy, which was similar to Klein and Freud's. Axline also believed in free play and did not play with the child. She interpreted and emphasized an environment that put no limits or rules upon the child. She introduced the idea that children in play therapy need to experience unconditional acceptance, empathic concern, and a nondirective atmosphere. In other words, Axline's approach to play therapy was to sit and observe and not be involved with the child.

Since then, the lack of limit setting, as well as the lack of active involvement with children in play therapy, has been criticized by play therapists. Nowadays, play therapists are more likely to get involved in play and to respond to children through play activity (as in the example above), as opposed to using language to communicate with them. There are two major groups of therapists who use play therapy. Traditional psychoanalytic or psychodynamic therapists who are followers of Klein or Axline make up one group; however, even within this group, there is much diversity with regard to how involved the therapist becomes with the child's play. The second group is composed of therapists who focus on the human interaction that takes place—that is, humanistic therapists.

Regardless of which group a play therapist belongs to, however, the primary ingredients that were proposed many years ago remain intact. As such, free play is still deemed important, and empathy is stressed in the relationship with the child. Many therapists believe that the interpersonal matrix that exists between the child and the therapist is critical to changes noted in the child. Further, a primary focus remains on the symbolism and metaphor expressed by children through play. It is unlikely that the nature of play therapy will change much in the next decades. Play therapy has become one of the most accepted modes of treating children and is likely here to stay.

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Christiane Brems

See also:

Abnormality: Family Models; Child Abuse; Child and Adolescent Psychiatry; Divorce and Separation: Children's Issues; Music, Dance, and Theater Therapy; Psychotherapy: Children; Psychotherapy: Goals and Techniques; Strategic Family Therapy.

POST-TRAUMATIC STRESS

Type of psychology: Psychopathology
Fields of study: Anxiety disorders

After an extreme psychological trauma, people tend to respond with stress symptoms that include reexperiencing the trauma through nightmares or unwanted thoughts, avoiding reminders of the traumatic event, loss of interest in daily life, and increased arousal; these symptoms can range from mild and temporary to very severe, chronic, and psychologically disabling.

Principal terms

FLASHBACK: a type of traumatic reexperiencing in which a person becomes detached from reality and thinks, feels, and acts as if a previous traumatic experience were happening again

HYPERAROUSAL: a set of symptoms of post-traumatic stress disorder that includes difficulty falling or staying asleep, irritability or angry outbursts, difficulty concentrating, extreme vigilance, and an exaggerated startle response

NATIONAL VIETNAM VETERANS READJUSTMENT STUDY: a large-scale federally funded study completed in the late 1980's that surveyed the mental and physical health of Vietnam veterans

POST-TRAUMATIC STRESS DISORDER: a disorder recognized by the American Psychiatric Association involving symptoms of stress and reexperiencing a traumatic event

REEXPERIENCING: the central symptom of post-traumatic stress disorder; it involves having nightmares, unwanted thoughts, or flashbacks of a traumatic event

TRAUMATIC EVENT: an event that is beyond the range of usual human experience and that would cause distress to almost anyone

Causes and Symptoms

It is common knowledge that there are psychological aftereffects from experiencing an intense psychological trauma. This discussion of post-traumatic stress symptoms will be organized around post-traumatic stress disorder (PTSD), one of the diagnostic categories of anxiety disorders recognized by the American Psychiatric Association. It should be realized at the outset, however, that it is normal for people to experience at least some of these symptoms after suffering a psychological trauma. The first step in understanding PTSD is to know its symptoms.

The first criterion for PTSD is that one has suffered a trauma. The American Psychiatric Association's definition of PTSD states that the trauma must be something that "is outside the range of usual human experience and that would be markedly distressing to almost anyone." It is not so much the objective event as one's perception of it that determines the psychological response. For example, the death of one's parents is not "outside the range of usual human experience," but it

can result in some of the symptoms described later. Some of the traumatic experiences deemed sufficient to cause PTSD include threat to one's own life or the life of a close relative or friend, sudden destruction of one's home or community, seeing another person violently injured or killed, or being the victim of a violent crime. Specific experiences that often cause PTSD include combat, natural or man-made disasters, automobile accidents, airplane crashes, rape, child abuse, and physical assault. In general, the more traumatic the event, the worse the post-traumatic symptoms. Symptoms of stress are often more severe when the trauma is sudden and unexpected. Also, when the trauma is the result of intentional human action (for example, combat, rape, or assault), stress symptoms are worse than if the trauma is a natural disaster (flood or earthquake) or an accident (automobile crash). It has been found that combat veterans who commit or witness atrocities are more likely to suffer later from PTSD.

Post-traumatic stress disorder is common in combat veterans; it was called "shell shock" during World War I and "battle fatigue" during World War II. (Digital Stock)

The central symptom of post-traumatic stress disorder is that the person reexperiences the trauma. This can occur in a number of ways. One can have unwanted, intrusive, and disturbing thoughts of the event or nightmares about the trauma. The most dramatic means of reexperiencing is through a flashback, in which the person acts, thinks, and feels as if he or she were reliving the event. Another way in which experiencing might be manifested is intense distress when confronted with situations that serve as reminders of the trauma. Vietnam War veterans with combat-related PTSD will often become very upset at motion pictures about the war, hot

and humid junglelike weather, or even the smell of Asian cooking. A person with PTSD often will attempt to avoid thoughts, feelings, activities, or events that serve as unwanted reminders of the trauma.

Another symptom that is common in people with PTSD is numbing of general responsiveness. This might include the loss of interest in hobbies or activities that were enjoyed before the trauma, losing the feeling of closeness to other people, an inability to experience strong emotions, or a lack of interest in the future. A final set of PTSD symptoms involves increased arousal. This can include problems with sleeping or concentrating, irritability, or angry outbursts. A person with PTSD may be oversensitive to the environment, always on the alert, and prone to startle at the slightest noise.

The paragraphs above summarize the symptoms that psychologists and psychiatrists use to diagnose PTSD; however, other features are often found in trauma survivors that are not part of the diagnosis. Anxiety and depression are common in people who have experienced a trauma. Guilt is common in people who have survived a trauma in which others have died. People will sometimes use alcohol or tranquilizers to cope with sleep problems, disturbing nightmares, or distressing, intrusive recollections of a trauma, and they may then develop dependence on the drugs.

Post-traumatic stress disorder is relatively common in people who suffer serious trauma. In the late 1980's, the most extensive survey on PTSD ever done was undertaken on Vietnam combat veterans. It found that more than half of all veterans who served in the Vietnam theater of operations had experienced serious post-traumatic stress at some point in their lives after the war. This represents about 1.7 million veterans. Even more compelling was the fact that more than one-third of the veterans who saw heavy combat were still suffering from PTSD when the survey was done—about fifteen years after the fall of Saigon. Surveys of crime victims are also sobering. One study found that 75 percent of adult females had been the victim of a crime, and more than one in four of the victims developed PTSD after the crime. Crime victims were even more likely to develop PTSD if they were raped, were injured during the crime, or believed that their lives were in danger during the crime.

Symptoms of post-traumatic stress are common after a trauma, but they often decrease or disappear over time. A diagnosis of PTSD is not made unless the symptoms last for at least one month. Sometimes a person will have no symptoms until long after the event, when memories of the trauma are triggered by another negative life event. For example, a combat veteran might cope well with civilian life for many years until, after a divorce, he begins to have nightmares about his combat experiences.

Most of the theory and research regarding PTSD has been done on combat veterans, particularly veterans of the Vietnam War. One of the most exciting developments in this area, however, is that the theory and research are also being applied to victims of other sorts of trauma. This has a number of important implications. First, it helps extend the findings about PTSD beyond the combat-veteran population, which is mostly young and male. Second, information gathered

from combat veterans can be used to assist in the assessment and treatment of anyone who has experienced a serious trauma. Because a large proportion of the general population experiences severe psychological trauma at some time, understanding PTSD is important to those providing mental health services.

An extended example will illustrate the application of theory and research findings on PTSD to a case of extreme psychological trauma. The case involves a woman who was attacked and raped at knifepoint one night while walking from her car to her apartment. Because of injuries suffered in the attack, she went to an emergency room for treatment. Knowledge about PTSD can help in understanding this woman's experience and could aid her in recovery.

First, research has shown that this woman's experience—involving rape, life threat, and physical injury—puts her at high risk for symptoms of post-traumatic stress. Risk is so great, in fact, that researchers have proposed that psychological counseling be recommended to all people who are the victims of this sort of episode. This suggestion is being implemented in many rape-recovery and crime-victim programs around the United States.

Knowing what symptoms are common following a traumatic event can help professionals counsel a victim about what to expect. This woman can expect feelings of anxiety and depression, nightmares and unwanted thoughts about the event, irritability, and difficulties in sleeping and concentrating. Telling a victim that these are normal responses and that there is a likelihood that the problems will lessen with time is often reassuring. Since research has shown that many people with these symptoms cope by using drugs and alcohol, it may also help to warn the victim about this possibility and caution that this is harmful in the long run.

One symptom of PTSD, psychological distress in situations that resemble the traumatic event, suggests why combat veterans who experience their trauma in a far-off land often fare better than those whose trauma occurs closer to home. Women who are raped in their home or neighborhood may begin to feel unsafe in previously secure places. Some cope by moving to a different house, a new neighborhood, or even a new city—often leaving valued jobs and friends. If an attack occurred after dark, a person may no longer feel safe going out after dark and may begin living a restricted social life. Frequently, women who are raped generalize their fear to all men and especially to sexual relations, seriously damaging their interpersonal relationships. Given the problems that these post-traumatic symptoms can cause in so many areas of one's life, it may not be surprising that one study found that nearly one in every five rape victims attempted suicide.

Treatment and Therapy

The main symptoms of post-traumatic stress are phobia-like fear and avoidance of trauma-related situations, thoughts, and feelings, and the most effective treatment for PTSD is the same as for a phobia. Systematic desensitization and flooding, which involve confronting the thoughts and feelings surrounding the traumatic event, are the treatments that appear to be most effective. It may seem paradoxical that a disorder whose symptoms include unwanted thoughts and dreams of a

traumatic event could be treated by purposefully thinking and talking about the event; however, Mardi Horowitz, one of the leading theorists in traumatic stress, believes that symptoms alternate between unwanted, intrusive thoughts of the event and efforts to avoid these thoughts. Because intrusive thoughts always provoke efforts at avoidance, the event is never fully integrated into memory; it therefore retains its power. Systematic desensitization and flooding, which involve repeatedly thinking about the event without avoiding, allow time for the event to become integrated into the person's life experiences so that the memory loses much of its pain.

Another effective way to reduce the impact of a traumatic event is through social support. People who have a close network of friends and family appear to suffer less from symptoms of trauma. After a traumatic experience, people should be encouraged to maintain and even increase their supportive social contacts, rather than withdrawing from people, as often happens. Support groups of people who have had similar experiences, such as Vietnam veteran groups or child-abuse support groups, also provide needed social support. These groups have the added benefit of encouraging people to talk about their experiences, which provides another way to think about and integrate the traumatic event.

Psychotherapy can help trauma victims in many ways. One way is to help the patient explore and cope with the way the trauma changes one's view of the world. For example, the rape victim may come to believe that "the world is dangerous" or that "men can't be trusted." Therapy can help this person learn to take reasonable precautions without shutting herself off from the world and relationships. Finally, symptoms of overarousal are common with PTSD. A therapist can address these symptoms by teaching methods of deep relaxation and stress reduction. Sometimes mild tranquilizers are prescribed when trauma victims are acutely aroused or anxious.

Perspective and Prospects

The concept of post-traumatic stress is very old and is closely tied to the history of human warfare. The symptoms of PTSD have been known variously as "soldier's heart," "combat neurosis," and "battle fatigue." Stephen Crane's novel *The Red Badge of Courage*, first published in 1895, describes post-traumatic symptoms in the Civil War soldier. It was the postwar experiences of the Vietnam combat veteran, however, studied and described by scholars such as Charles Figley, that brought great attention to issues of post-traumatic stress.

It was not until 1980 that the American Psychiatric Association recognized "post-traumatic stress disorder" in its manual of psychiatric disorders. Since then there has been an explosion of published research and books on PTSD, the creation of the Society for Traumatic Stress Studies in 1985, and the initiation of the quarterly *Journal of Traumatic Stress* in 1988. Since these developments, attention has also been directed toward post-traumatic symptoms in victims of natural disasters, violent crime, sexual and child abuse; Holocaust survivors; and many other populations. Surveys have found that more than 80 percent of college students have suffered at least one trauma potentially sufficient to cause PTSD, and

many people seeking psychological counseling have post-traumatic stress symptoms. Thus, it is fair to say that the attention garnered by Vietnam veteran readjustment problems and by the recognition of PTSD as a disorder by the American Psychiatric Association has prompted the examination of many important issues related to post-traumatic stress.

Because research in this area is relatively new, there are many important questions that remain unanswered. One mystery is that two people can have exactly the same traumatic experience, yet one will have extreme post-traumatic stress and one will have no problems. Some factors are known to be important; for example, young children and the elderly are more likely to suffer from psychological symptoms after a trauma. Much research is needed, however, to determine what individual differences will predict who fares well and who fares poorly after a trauma.

A second area of future development is in the assessment of PTSD. For the most part, it is diagnosed through a self-report of trauma and post-traumatic symptoms. This creates difficulty, however, when the person reporting the symptoms stands to gain compensation for the trauma suffered. Interesting physiological and cognitive methods for assessing PTSD are being explored. For example, researchers have found that Vietnam veterans with PTSD show high levels of physiological arousal when they hear combat-related sounds or imagine their combat experiences. Finally, the future will see more bridges built between post-traumatic stress and the more general area of stress and coping.

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Scott R. Vrana

See also:

Anxiety Disorders; Aversion, Implosion, and Systematic Desensitization Therapies; Child Abuse; Domestic Violence; Phobias; Stress; Stress: Behavioral and Psychological Responses; Stress: Coping Strategies.

Projective Personality Traits

Type of psychology: Personality
Fields of study: Personality assessment

Projective personality traits are often assessed by tests which present ambiguous material to the person being tested; all of behavior is included under the definition of personality, and responses to unstructured tests will reveal an individual's needs, wishes, and attitudes. It is assumed that the person will give responses which cannot or will not be given otherwise.

Principal terms

CLINICAL PERSONALITY ASSESSMENT: the use of tests and other techniques to obtain broad understanding of an individual for the planning and evaluation of treatment

DEFENSE MECHANISMS: a psychoanalytic concept of mechanisms that protect an individual from excessive anxiety; considered signs of psychopathology when they are excessive

OBJECTIVE PERSONALITY TESTS: self-report measures used for psychological assessment; include personality inventories and checklists which require paper-and-pencil responses to questions

PROJECTIVE METHOD: refers to any task that provides an open-ended response that may reveal aspects of one's personality; tasks or tests commonly include standard stimuli that are ambiguous in nature

PSYCHOPATHOLOGY: disorders of psychological functioning that include major as well as minor mental disorders and behavior disorders

Overview

The concept of projection goes back to Sigmund Freud, who introduced this term to describe certain psychopathological processes. It was described as a defense which permits one to be "unaware of undesirable aspects of one's personality by attributing aggressive and or sexual feelings to others or to the outside world." In that way, one can avoid being aware of those feelings in oneself. Projection is usually described as a defense mechanism whose purpose is to avoid feeling guilty or neurotically anxious. Freud's theory suggested that it was easier to tolerate punishment from the outside rather than to accept impulses inconsistent with one's self-concept and moral principles. Thus, it is simpler to accuse someone else of hating oneself than it is to admit hating the other person. Defense mechanisms are unconscious processes; one is not likely to admit consciously that one hates someone if one is neurotically anxious. In its extreme forms, Freud notes, distortion of reality can be of such major proportions that perception of the judgment of others takes the form of paranoia.

One of the best-known tests employing projective techniques are the inkblots developed by Hermann Rorschach.

Freud later extended the use of the term "projection" to include times when there is no conflict. He believed that as one goes through life, memories of past events influence the way one sees the present. Early life experiences shape the future so that, for example, the kind of experiences one had with a brother when growing up influences how one sees "brothers" relate to their families. This leads to the basic assumption that all present responses to one's environment are based, as Albert Rabin puts it, on personal needs, motivations, and unique tendencies. All of these are actually based on past experiences. Sheldon Korchin suggests that the weakening of the boundaries between self and others also occurs in empathy, which has been viewed as the opposite of projection. In empathy, one figuratively puts oneself in another person's shoes by accepting and experiencing the feelings of another person. Empathy, therefore, is an important part of establishing close and meaningful relationships with others and is an important aspect of personality.

Leopold Bellak sees projection as the term one uses to describe a greater degree of overall distortion. This is consistent with Freud's original use of the term. He differentiates this pathological and unconscious type of projection, which he calls inverted projection, from simple projection. Simple projection occurs all the time and is not of great clinical significance.

For example, suppose a woman wants to borrow her friend's hedge trimmer. As she walks down the block to her friend's house, she thinks about how she is going to ask for the hedge trimmer, since she knows that her friend is not overly enthusiastic about lending his garden tools. She begins to think that her friend might say that it took her a long time to return the trimmer the last time she borrowed it and perhaps that it needed maintenance after she used it. She answers this imagined comment by saying that it rained soon after she started and that she could not finish the job for three days.

She then imagines that her friend will say that she should have returned the trimmer and asked for it again later. She imagines answering that criticism by stating that she knew her friend had gone out of town and would not be back until later in the week. This imaginary conversation might continue until she arrives at her neighbor's house. Her neighbor is on the porch, and he greets her in a friendly manner. Nevertheless, she responds angrily by telling him that she would never want to borrow his old hedge trimmer anyway. Ballak would explain this incident by noting that the woman wants something from her neighbor but can recall his hesitancy to lend tools: He may turn her request down, which makes her angry. She then assumes that her friend is angry with her. Her response is to be angry with him because he is angry with her.

A discussion of projective personality traits would be incomplete without discussing the projective hypothesis on which projective tests are based. This hypothesis states that when one is confronted by an ambiguous stimulus, responses will reflect personal needs, wishes, and overall attitudes toward the outside world. This assumes that all of one's behavior, even the least significant aspects, is an expression of personality. As Anneliese Korner asserts, individuals who are presented with ambiguous material give responses that they cannot or will not give otherwise. The person who responds to projective techniques does not know what the presenter expects. The resistance to disclosing personal material (including wishes, fears, and aspirations) is diminished. In addition, Korner suggests that what is disclosed in response to projective techniques is not a chance event but is determined by previous life experiences.

Among the most widely known tests that use projective techniques are the Rorschach inkblot test and Henry Murray's Thematic Apperception Test (TAT). The Rorschach technique consists of ten standard inkblots to which a participant is asked to respond by telling the examiner what the blots look like. Murray's Thematic Apperception Test, on the other hand, consists of twenty pictures designed to include stories which can give important clues to a person's life and personality. The set is sufficiently clear to permit one to tell stories without great difficulty, yet the pictures are ambiguous enough (unstructured) so that individuals will differ in the kinds of stories they will tell.

Applications

John Exner raises the issue as to whether all responses to a projective technique such as the Rorschach test are necessarily aspects of projection. Is it true, he asks, that more ambiguous stimulus material produces more projection than does less ambiguous material? A simple example may be helpful. Suppose an individual is shown a glass container with sand flowing from one portion of the glass to the other and asked to give this object a name. Most people will call it an egg timer. Assume, however, that a thirty-five-year-old individual embellishes the description of the egg timer by stating that it represents the sands of time and is an indication that life is drawing to a close. That kind of response, in an individual of good health who is thirty-five years old, would seem to be an example of projection. Clearly, however, based on one response, it would be premature to build firm conclusions about this

individual's attitudes toward life and death. Similarly, on the Rorschach, one response descriptive of aggression may not be particularly diagnostic, but there is evidence that those who give higher frequencies of aggression responses show more aggressive verbal and nonverbal behaviors than those who do not.

Exner, in reporting on other studies, points out that Rorschach interpretations can also be useful with children. He notes that children change over time in their responses to the inkblots and that younger children change more than older children. Further, as children move into mid- and late adolescence, more overall stability is noted in the responses. Finally, he points out that perceptual accuracy stabilizes early.

A third study asks the question whether patients in a hospital setting who have experienced a major loss differ from patients who have not suffered such a loss. Mary Cerney defined three categories of major loss: death or serious injury to individuals close to the patient (including parents, close relatives, or friends); loss as a function of physical or sexual abuse such as incest, torture, or rape; and the observation of violence to other individuals. Cerney found differences in the responses between individual patients who had experienced such loss and patients who had not. She concluded that in this study, patients who had experienced early trauma had distinguishing Rorschach profiles. She further noted, however, that one needed further investigations to determine whether there were factors other than traumatic loss which could contribute to this profile difference.

In a study designed to measure change in defense mechanisms following intensive psychotherapy, researchers compared two groups of individuals who were being treated in a small, long-term treatment facility with a psychoanalytic orientation. One group of patients was judged in advance to be prime users of such defense mechanisms as repression and denial, while the other group was judged to make much more use of projection. This categorization was based on a through evaluation six weeks after admission to the treatment center. After about fifteen months of intensive treatment, patients were evaluated again in a comprehensive manner. The use of defense mechanisms was established on the basis of responses to the Thematic Apperception Test. Results indicated that all patients showed a reduction in the total use of defense mechanisms; this was associated with a reduction in psychiatric symptoms. Interestingly, the patients who made use of projection as a defense showed a greater decline in the use of that defense mechanism after treatment. Along with the decrease in psychiatric symptoms, both groups also showed, as one might expect, improved relationships with others from both a qualitative and a quantitative perspective.

Freud also applied the concept of projection to everyday personality traits such as jealousy. He differentiated between normal jealousy, projected jealousy, and delusional jealousy. From a psychoanalytic view, he had little to say about normal jealousy; however, projected jealousy, he stated, came from two sources. Either it comes from actual unfaithfulness or from impulses toward unfaithfulness which have been pushed into one's unconscious. He speculated that married individuals are frequently tempted to be unfaithful. In view of that temptation, it is likely that one's conscience can be soothed by attributing unfaithfulness to one's partner.

Jealousy arising from such a projection can be so strong as to take on the quality of a delusion. Many people are aware of individuals who incorrectly suspect their committed partner to be unfaithful. Freud would argue that these inaccurate expectations are unconscious fantasies of one's own infidelities and can be so analyzed in psychoanalytic therapy.

Perspective and Prospects

The term "projection" was introduced by Sigmund Freud in 1894. Initially Freud viewed it as a defensive process, but by 1913 the concept was broadened to refer to a process that may occur even if there is no conflict. John Exner believes that Freud's description of projection is most applicable in the context of projective tests. Exner also suggests that Freud's concept of projection fits in well with Henry Murray's discussion of the Thematic Apperception Test. Murray's broadened explanation of projection included the idea that the ambiguity of responding to a social situation (the test materials) provides clues to that individual's personality makeup and its expression through responses to projective methods. Lawrence Frank further emphasized the connection between projective tests and the unique expression of an individual's personality by stating the projective hypothesis.

Applied psychology has been heavily involved with the study of intelligence and the development of tests to evaluate achievement, memory, motor skills, and other cognitive aspects of human functioning. The study of personality was more heavily focused on individual traits, such as extroversion versus introversion. Emphasis on test construction focused on group norms, and comparisons of individual scores on tests were based on their relationships to group data. According to Exner, early Rorschach research also attempted to focus on group norms. To some extent, the focus on determining the meaning of individual responses was probably a reaction to the more "scientific" behavioral and statistically based methods commonly used.

As Exner notes, initial work with the Rorschach inkblots emphasized attempts to quantify personality characteristics; there was relatively little interest in the actual content of the responses. As interest in psychoanalysis swept the country, clinical psychologists began to focus on individual responses to tests, in contrast to their prior emphasis on group comparisons. Projective tests were very controversial, however, and a dichotomy developed between projective tests and the so-called objective tests. The latter tests were ones that could be scored reliably and for which group norms existed. Concurrently, numerous scoring systems were developed for the Rorschach test as well as for other projective measures.

In the late 1970's, Exner developed a comprehensive scoring system for the Rorschach which incorporated many of the features of the existing systems and integrated them into one overall method. In addition, he collected normative data on children, adolescents, and adults that provide opportunities for group comparisons. His comprehensive system is now widely taught in colleges and universities and has provided a measure of unity to the Rorschach test, which is still the personality instrument most widely used by clinicians. The assessment of personality traits will probably continue to flourish, and there will probably be an increasing emphasis on both subjective and objective responses in order to assess

personality. Furthermore, computerized scoring of responses is common for objective personality tests and is beginning to be used with projective personality measures; this is likely to influence the future of personality tests.

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Norman Abeles

See also:

Abnormality: Psychodynamic Models; Behavioral Assessment and Personality Rating Scales; Jealousy.

PSYCHIATRY

Type of psychology: Psychotherapy
Fields of study: Behavioral therapies; classic analytic themes and issues; cognitive therapies; group and family therapies; humanistic therapies; personality assessment; psychodynamic therapies

Psychiatry is a medical field concerned with the diagnosis, epidemiology, prevention, and treatment of mental and emotional problems.

Principal terms

ANXIETY DISORDERS: problems in which physical and emotional uneasiness, apprehension, or fear is the dominant symptom

BIPOLAR DISORDERS: problems marked by mania or mania with depression; historically known as manic-depressive disorders

DEMENTIAS: disorders characterized by a general deterioration of intellectual and emotional functioning, involving problems with memory, judgment, emotional responses, and personality changes

DEPRESSIVE DISORDERS: problems involving persistent feelings of despair, weight change, sleep problems, thoughts of death, thinking difficulties, diminished interest or pleasure in activities, and agitation or listlessness

PERSONALITY DISORDERS: pervasive, inflexible patterns of perceiving, thinking, and behaving that cause long-term distress or impairment, beginning in adolescence and persisting into adulthood

PSYCHOTIC: referring to a disabling mental state characterized by poor reality testing (inaccurate perceptions, confusion, disorientation) and disorganized speech, behavior, and emotional experience

PSYCHOTROPIC DRUGS: substances primarily affecting behavior, perception, and other psychological functions

SCHIZOPHRENIC DISORDERS: mental disturbances characterized by psychotic features during the active phase and deteriorated functioning in occupational, social, or self-care abilities

Overview

Psychiatrists receive training in biochemistry, community mental health, genetics, neurology, neuropathology, psychopathology, psychopharmacology, and social science. They complete medical school, a four-year residency in psychiatry, and two or more years of specialty residency. Specialty residencies focus on particular treatment methods (such as psychoanalysis) or methods of diagnosis and treatment for particular groups of clients (such as children, adolescents, or elders).

As diagnosticians and treatment providers, psychiatrists must be excellent observers of behavior and be knowledgeable about how nutritional, physical, and situational conditions can be related to mental or emotional problems. An ability to consult with other professionals is also important. Psychiatrists often receive

patients from other professionals (general practitioners, psychologists, emergency room staff) and often request diagnostic, legal, case management, and resource advice from other professionals (psychologists, attorneys, social workers). In situations involving abuse, neglect, incompetency, and suicide, such consultation relationships are critical for appropriate referral and treatment.

Given this preparation, psychiatrists are able to diagnose and treat a wide variety of disorders. Some of the most common disorders treated in adult populations include disorders of anxiety (such as phobias, panic attacks, obsessive-compulsive behavior, acute and post-traumatic stress) and mood (such as depressive and bipolar problems). Personality, schizophrenic, substance abuse, and dementia-related disorders also are treated frequently by psychiatrists. Such conditions are described in detail in the American Psychiatric Association's *Diagnostic and Statistical Manual of Mental Disorders* (4th ed., 1994, DSM-IV).

Applications

A well-formulated psychiatric diagnosis facilitates treatment planning for mental and emotional disorders. Psychiatric diagnoses, however, are very complex. They are described in a system with five axes of information in order to give a comprehensive picture of how well a person is functioning in everyday life. Axis I pertains to clinical conditions diagnosed in infancy, childhood, or adolescence, as well as other primary mental problems experienced by adults, including cognitive, substance-related, psychotic, anxiety, mood, eating, sleep, impulse control, factitious, somatoform, dissociative, and adjustment disorders. Axis II summarizes problems related to personality and mental retardation. Axis III describes any general medical conditions that are related to a person's mental problems and that may also warrant special attention. Axis IV summarizes psychological, social, and environmental problems that may affect the diagnosis, prognosis, or treatment of a person's mental problems. Axis V is used to give a standardized, overall rating of how well the person has been functioning with his or her disorder.

Once a diagnosis is formulated, a treatment plan is composed. Usually, it involves some combination of medicinal and psychotropic drugs, bibliotherapy, dietary and behavior change recommendations, and psychotherapy for the affected individual or his or her entire family. Treatment compliance is critical, particularly when psychotropic drugs are involved. As such, psychiatric treatment often involves frequent initial contacts and an after-care plan of continued visits with the psychiatrist or a support group able to encourage follow-through on the treatment recommendations.

Perspective and Prospects

The concepts of mental health and illness have been in human cultures since ancient times. As early as 2980 B.C.E., priest-physicians were noted for their treatment of spirit possession involving madness, violence, mutism, and melancholy. In those times, such problems were thought to originate from external, supernatural forces. Later, during the rise of Greco-Roman philosophies in medicine, such states of mind began to be explored more as disturbances of the brain

and less as the result of supernatural causes. As such, treatments began to develop greater reliance on methods such as vapors, baths, diets, and emetic and cathartic drugs.

Over time, the field of psychiatry has matured and taken on a major role in medicine. Research into the mind-body relationship has clarified how the mind can influence the healing of medical conditions, as well as how certain medical conditions are rooted in psychological, social, and environmental problems, rather than in a person's biology alone. Additionally, advances in the development of psychotropic drugs have played a major role in the treatment of disabling conditions long thought to be untreatable, such as schizophrenic and bipolar disorders.

In the future, psychiatry is expected to continue developing a broad variety of specialty areas. New techniques for working with children, adolescents, elders, and individuals with particular medical problems or of a particular gender or cultural background are developing rapidly. Finally, understanding the relationship between psychiatric disorders across the life span is likely to increase, as is the need to develop treatments for complex scenarios involving multiple diagnoses.

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Nancy A. Piotrowski

See also:

Analytical Psychotherapy; Aversion, Implosion, and Systematic Desensitization Therapies; Behavioral Assessment and Personality Rating Scales; Behavioral Family Therapy; Child and Adolescent Psychiatry; Cognitive Behavior Therapy; Cognitive Therapy; Community Psychology; Electroconvulsive Therapy; Geriatric Psychiatry; Gestalt Therapy; Group Therapy; Mental Health Practitioners; Modeling Therapies; Music, Dance, and Theater Therapy; Operant Conditioning Therapies; Person-Centered Therapy; Play Therapy; Psychoactive Drug Therapy; Psychoanalysis; Psychotherapy: Children; Psychotherapy: Effectiveness; Psychotherapy: Goals and Techniques; Psychotherapy: Historical Approaches to Treatment; Rational-Emotive Therapy; Reality Therapy; Strategic Family Therapy; Transactional Analysis.

Psychoactive Drug Therapy

Type of psychology: Psychotherapy
Fields of study: Biological treatments; nervous system

Psychoactive drug therapy is one approach to the treatment of various psychopathologies. The relationship between nervous system function and behavior enables the use of drugs intended to reduce symptoms associated with abnormal psychology. One major goal is to design drugs that will permanently reverse psychopathologies; this has been accomplished only rarely.

Principal terms

EFFICACY: a pharmacological term that addresses a drug's ability to perform an action or actions effectively

MEDICINAL CHEMISTRY: a division of organic chemistry in which drugs that have a potential for pharmacological activity are produced

NEUROTRANSMITTER: a chemical substance released from one nerve cell that communicates activity by binding to and changing the activity of another nerve cell

PSYCHOPHARMACOLOGY: the science that studies drugs that act on the nervous system and are capable of altering behavior

RECEPTOR: a molecule or molecular complex that binds with a drug, resulting in an interaction that leads to a pharmacological effect

THERAPEUTIC INDEX: a pharmacological parameter that indicates safety by comparing a drug's beneficial and adverse effects

TRANQUILIZER: technically, an antipsychotic drug; often misused to refer to a sedative-hypnotic drug

Overview

Humans have used drugs for a variety of purposes throughout the ages. The earliest records demonstrate well-developed systems for therapeutic drug use; it is not a farfetched extension to suggest that the medicinal use of drugs long preceded recorded history. Early humans recognized the availability of useful medicines in the natural world, particularly in plants, while also feeling the need to treat ailments, including those that are now recognized as being associated with problems in the nervous system. Ancient use probably reached its peak in Egypt, where a precursor to modern chemistry, medicinal alchemy, developed as a result of considerable interest in health, life, and the afterlife.

Although intellectual activity in general stagnated during the Dark Ages, alchemy was kept alive in the Arabic world, and it slowly worked its way into Europe. Alchemy is often associated with attempts to convert base metals such as lead into precious metals such as gold, but medicinal alchemy held an equal footing

during the Middle Ages. These practices were probably prescientific in that experimentation was blended in a complex fashion with mystical events, but the development and use of medicines during that time laid a substantial foundation for the modern era of drug use.

The scientific revolution was in progress by the time any substantial deviation from the native and alchemical uses of drugs occurred. The real break came with the end of vitalistic beliefs—that is, the belief that living matter somehow contained special attributes beyond other matter. The end of vitalism ushered in the field of organic chemistry, in which chemical knowledge is focused upon carbon and its compounds, the building blocks of life. By the late nineteenth century, organic chemists were gaining expertise in synthesis, the practice of constructing new molecules from simpler building blocks. The power of synthetic chemistry is that molecules can be designed from natural models or that unique substances, unknown in nature, can be built. The twentieth century has been dominated by the proliferation of synthetic chemicals, including drugs synthesized by organic chemists.

Psychoactive drug therapy as a formal scientific discipline may date from the reintroduction of the natural product ephedrine from China and the subsequent synthesis of amphetamine, a closely related but more powerful stimulant of the central nervous system, in the early third of the twentieth century. Parallel developments over time in philosophical beliefs about mind, brain, and behavior led to changes in attitudes about the nature of mental illness. Slowly, people associated psychopathology less with evil possession and other undefinable processes and more with brain mechanisms that could be treated with components of the material world. Drugs are one example of material substances that can affect brain function. Psychoactive drug therapy thus has developed as a result of the convergence of scientific thought in psychology and pharmacology.

Modern practice finds drug use for therapeutic purposes in a wide range of areas. Chief among them are the sedative-hypnotic drugs, which are used for anxiety reduction; the antidepressants, which are applied to clinical depression; and the antipsychotics, which have revolutionized the medical treatment of schizophrenia and other severe psychoses. All drug use involves complex outcomes, ranging from extreme benefit, occasionally even cure, to severe adversity, including death. Cost-benefit analysis is the rigorous study of the continuum of effects associated with drug use, including therapy. Generally, scientific development of drugs has resulted in drugs that are more specific in achieving wanted, beneficial outcomes at the expense of nonspecific, unwanted, and adverse results. Accordingly, drug development produces drugs whose cost-benefit analyses fall more toward the benefit side.

As drugs evolve, previously important categories, such as amphetamine stimulants, fall from therapeutic favor as finer tools, such as antidepressants, are introduced. In a given family of drugs, such as the sedative-hypnotic family, one generation replaces another. The barbiturate sedative-hypnotics widely used in the 1940’s and 1950’s were moved aside by the benzodiazepines, such as diazepam (Valium), in the 1960’s. Psychoactive drug therapy involves the systematic search

for new categories of drugs that can be used to treat previously untreatable disorders and for refinements of existing categories in order to produce safer, more effective therapy. This article deals with this developmental edge, speculation about future drug therapy, and the traditionally useful classifications.

Applications

From the standpoint of revolutionary impact, no drugs hold a higher position in the psychotherapeutic realm than the antipsychotics. Until the mid-1950's, there were no efficacious drugs in this area. Standard approaches to treatment included chronic institutionalization, shock therapy (both electrical and insulin), and psychosurgery (lobotomy and lobectomy). All these regimens had serious limitations in both efficacy and adversity.

In the early 1950's, researchers introduced the drug reserpine (Serpasil) on the strength of its active properties in the cardiovascular and nervous systems. Reserpine's ability to reduce symptomology in schizophrenia and related psychoses triggered the breakthrough into the age of antipsychotic drugs. In a very short time, reserpine was superseded by chlorpromazine (Thorazine), the first of the phenothiazine antipsychotics, which have remained the primary drugs of choice. Thorazine's introduction in 1955 produced a remarkable outflow of patients from the world's mental institutions, since its palliative properties of reduction of emotionality, blockage of hallucination, and clearing of thought processes allowed thousands of people to resume relatively normal lives as outpatients.

It is important to recognize that the phenothiazines do not cure psychoses. Rather, the drugs have been shown to block the action of the neurotransmitter dopamine in the brain. Antagonizing dopamine reduces symptomology but does not end the disorder. Scientists are still struggling to find the causes of psychoses among genetic, psychological, neurochemical, and social factors. Additionally, phenothiazines are not without negative effects. Although the drugs show very high therapeutic indices, suggesting high safety, there are problems that must be considered prior to and during administration of the agents. Foremost is the extremely high probability that chronic users of phenothiazines will suffer from progressive, sometimes irreversible, degeneration in the basal ganglia, leading to Parkinson-like tardive dyskinesias (involuntary motor movements or facial twitches) and related problems in secondary motor control. Like the efficacy of these drugs, these problems also seem to be related to dopamine-blocking properties. Another problem, although of lesser frequency, is liver toxicity. Another category of antipsychotics, the butyrophenones, haloperidol (Haldol) being the prototype, is also frequently used. These drugs are often used to treat geriatric patients; overall, their general pharmacology is very similar to that of the phenothiazines.

From the standpoint of societal impact, the sedative-hypnotic drugs are by far the most important psychotherapeutic agents. Since the introduction of chlordiazepoxide (Librium) in 1962, the benzodiazepines have been the favored category of sedative-hypnotic drugs. Each year in the United States alone, hundreds of millions of dollars are spent on benzodiazepines, mostly for their anxiety-reducing properties. Diazepam (Valium), the best known of these drugs, shows a prototypical

dose-related spectrum of activity from low-dose anxiety reduction to sedation, hypnosis, and eventually anesthesia and coma at higher doses. The major advantage of the benzodiazepines relative to older drugs such as the barbiturates—for example, phenobarbital—is that the newer drugs are much more specific in their actions. Consequently, the older drugs are much more depressive, have lower therapeutic indices, and are much more likely to lead to overdose death as a result of respiratory and cardiovascular arrest.

Sedative-hypnotic drugs are thought to act by means of complex interactions with gamma aminobutyric acid (GABA) receptors in the brain. Unfortunately, highly specific antagonists have not been available clinically. Development of high-affinity antagonists is a priority of research in this field, because overdose death, particularly with use of the older drugs, could be greatly reduced if appropriate agents existed. The agonists, such as Valium, are also used for their anesthetic, anticonvulsant, and muscle-relaxing properties. The sedative-hypnotic drugs, frequently called tranquilizers, are likely to be highly used for years to come. Development of even-higher-specificity agonists, perhaps working by means of different mechanisms, is a common goal in the drug industry.

In terms of drugs that are becoming increasingly important, the antidepressants lead the way. The first drugs that showed widespread efficacy are those known as tricyclic antidepressants; amitriptyline (Elavil) and imipramine (Tofranil) are well-known examples. They are often called first-generation antidepressants. Although they have long latencies (a few weeks to months), these drugs are rather effective in the general population of severely depressed individuals. The term "first generation" is a misnomer, because a group of drugs known as the monoamine oxidase inhibitors (MAOIs) actually came first. The MAOIs, however, such as tranylcypromine (Parnate), carry much greater toxicity, and are currently used in cases that are refractory to other drugs. Thus, the first-generation drugs were the first to have reasonable therapeutic indices.

A second generation of drugs became prominent in the 1980's. Highly utilized examples include trazodone (Desyrel) and fluoxetine (Prozac). Some controversy surrounds these drugs in terms of their differential efficacy (with respect to the first generation) and their safety. Broadly speaking, they are quite similar to the first generation. All the antidepressants appear to act through biogenic-amine mechanisms, with special emphasis on norepinephrine and serotonin. Some of the second-generation drugs may be more specific toward serotonin.

No discussion of psychoactive drug therapy is complete without mention of drugs used to treat bipolar disorders (manic-depressive disorders). Traditional antidepressants are not usually effective in bipolar disorders. Instead, lithium salts, usually lithium carbonate or lithium chloride, are used. Lithium is especially remarkable because its organic structure is so much smaller than the organic structures of most psychoactive drugs. Nevertheless, lithium is one of the only known treatments for bipolar disorders; it is reasonably safe, provided the dosage is carefully monitored and is not allowed to drift into the toxic range. Its mechanism is unknown, although biogenic-amine mechanisms are frequently mentioned, and its similarity to the sodium ion in neuroconduction has been recognized.

There are many other psychoactive drugs. Those agents outlined here, however, constitute the heart of the category. The hallucinogens (psychotomimetics and psychedelics), which are unusually potent and show a variety of neural and behavioral activities, are worthy of note. These drugs have not, however, been shown to be useful therapeutically. Another extremely important category is the opiate or narcotic group. These drugs are especially fascinating in a psychological sense, in that their great effectiveness in relieving severe pain is associated more with an individual's perception of pain severity than with actual blockage of painful stimuli.

Perspective and Prospects

Psychoactive drug therapy has become an important component of clinical medicine with the recognition that few disorders can be effectively addressed by means of a single therapeutic regimen. Multifaceted approaches involving parameters from the psychological, sociological, pharmacological, and cultural realms are the rule rather than the exception. The increased importance of drug therapy also mirrors two other important trends: the increasing emphasis in science generally to embrace, at least in part, materialistic philosophical trends; and the boom in medical chemistry, which has made available many new, useful drugs.

In the past, drugs such as strychnine, salts of arsenic, mercury, lead, and chloroform were vital pharmacotherapeutic agents. Today, these substances are considered to be poisons, common laboratory chemicals, or, at best, therapeutic drugs of dubious character. This is not to say that these substances had no value. In most cases, they did have value; however, they have been superseded by agents with greater specificity, higher therapeutic indices, and targets that are better known. Thus, such previously used drugs are said to be antiquated. It does not take a great leap of imagination to suggest that any psychoactive drug list may become antiquated. In fact, it is the hope of almost all workers in this field that currently favored drugs will be displaced. Broadly speaking, few (if any) drugs in use today are ideal. Most are not curative, many lack specificity, and more than a few have therapeutic indices that are lower than one would wish.

Two significant trends should revolutionize the psychoactive drug list during the twenty-first century. First, a greater understanding of psychopathologies will progressively refine the targets for drugs. This awareness will arise from a number of areas. Drugs themselves are extraordinary tools for gaining a better understanding of the nervous system. Additionally, the behavioral and cognitive approaches to psychology, the evolution of counseling techniques and theories, and developments in the social sciences will increasingly shed light on the etiology of psychopathologies.

Second, drug development is undergoing revolutionary changes. Traditional development has centered on what are known as structure-activity relationships. This approach has been productive, but the continuous alteration of structure to achieve greater activity with higher specificity is a long process that has clear limitations. Progress in molecular biology in the latter half of the twentieth century, coupled with powerful computer modeling tools for molecules, has led pharma-

cologists to examine drug receptors themselves. As these macromolecular receptors become better understood in a chemical and three-dimensional sense, drugs can be efficiently designed to interact with the receptors. It is quite realistic to propose that psychotherapeutic drug therapy will be much more effective, safer, and in many cases even curative in the decades ahead. This is encouraging for scientist, clinician, and patient alike.

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Keith Krom Parker

See also:

Abnormality: Biomedical Models; Addictive Personality and Behaviors; Anxiety Disorders; Depression; Insomnia; Manic-Depressive Disorder; Neuroses; Psychosis; Schizophrenia.

PSYCHOANALYSIS

Type of psychology: Psychotherapy
Fields of study: Classic analytic themes and issues; evaluating psychotherapy; psychodynamic therapies

Classical psychoanalysis, developed by Sigmund Freud, was first used to treat people with symptoms (such as hysterical paralyses) lacking an organic cause. Modern psychoanalysis is more widely applicable, including to those whom Freud considered untreatable by psychoanalysis, those who are particularly resistant to treatment, and those who have had disappointing experiences with previous therapy.

Principal terms

CLASSICAL PSYCHOANALYSIS: the method of treatment of psychological disorders that was developed by Sigmund Freud

COUNTERTRANSFERENCE: errors therapists make in response to the errors their clients make; clients may assume that the therapist is omniscient and omnipotent, for example, and therapists may see themselves as infallible

DEVELOPMENT: the course of change and growth that an individual follows throughout life

PSYCHOANALYST: a person who has completed psychoanalytic training, a specialized and comprehensive form of psychotherapeutic training

PSYCHOTHERAPIST: a person who may have had a range of psychotherapeutic training (much or little); a general term for practitioners of various types of therapy

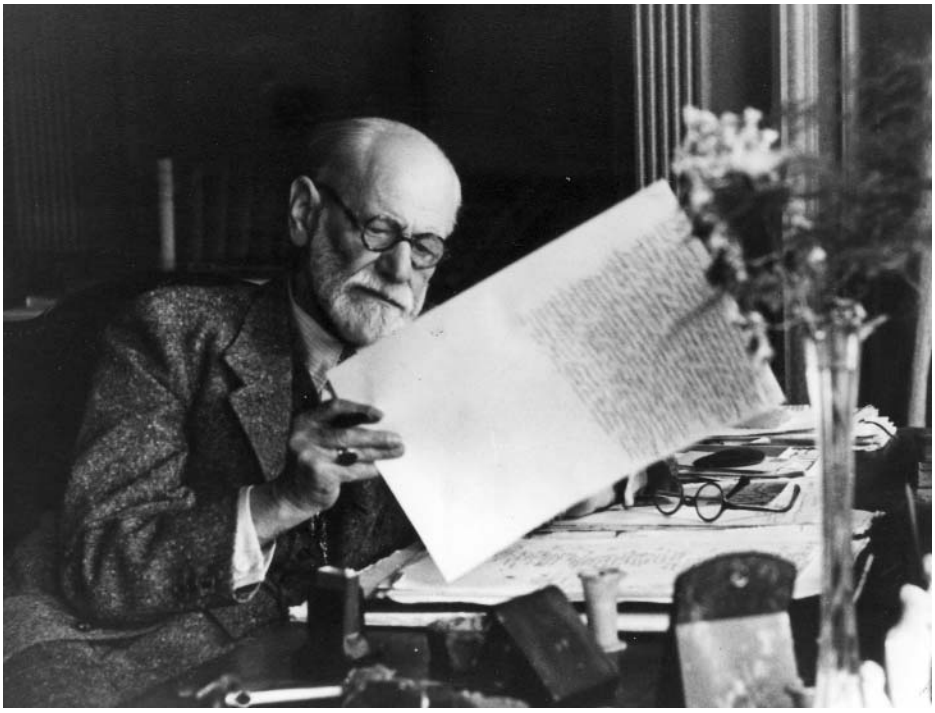
TRANSFERENCE: the errors clients make when they view therapists; one example would be believing that therapists will be as punitive toward them as their original caregivers were

Overview

Psychoanalysis, a method of treating psychological disorders and a way of investigating why people do what they do, was formulated by Sigmund Freud around the beginning of the twentieth century. When psychoanalysts and others in the mental health field investigate the reasons individuals act in specific ways (for example, avoiding contact with others), they are exploring human motivations. People who have completed psychoanalytic training are called psychoanalysts. Psychoanalysis was originally the province of psychiatry because Freud was a physician (by definition, a licensed psychiatrist is also a licensed physician). Since then, however, the specialty has broadened to include psychologists, social workers, the clergy, nurses, teachers, administrators, artists, and scientists.

Classical psychoanalysis is intended to assist individuals who have entered treatment. Those people most in need, however, usually do not elect treatment; those who enter appear to be better off than those who avoid saying “I need help.” The ways in which help is rendered derive from the concept of excavating:

Psychoanalysts "dig" for motivations of which clients may be unaware or less than fully aware; self-defeating patterns of thinking, feeling, or acting; and blocks to optimal functioning. Modern analysts share such conceptualizations. Both classical and modern analysts employ views of awareness ranging from conscious awareness through what Freud termed "preconscious" (accessible to awareness under the right conditions of preparation or growth) to "unconscious." Freud's is a tripartite schema, but what exists is a continuum between the polar extremes of full awareness and complete unawareness.



Sigmund Freud, the founder of psychoanalysis. (Library of Congress)

Freud developed the theory and technique that became classical psychoanalysis. It includes free association and the concepts of transference and resistance. Free association means that people in psychoanalytic treatment say whatever occurs to them, no matter how illogical, bizarre, or embarrassing their utterances may be. Free association has been called the "fundamental rule" of classical psychoanalysis. Transference constitutes the mistaken assumptions that a client makes about the analyst. For example, hope or magical thinking may generate the view that the analyst can and will fix everything without the person in therapy having to undertake any responsibilities for the treatment or for personal growth outside it. Pessimism (stemming, for example, from previous mistreatment) may be responsible for mistrust of the analyst or for an expectation that the analyst will be as condemnatory as others were.

Resistance refers to the many ways clients disregard requests to free-associate, refuse to observe other rules of treatment, or sabotage their own progress toward health. Resistance shows the analyst that the client is avoiding something that is difficult to confront and therefore important.

The person in analysis is not the only one who misperceives the other. The analyst is also a human being and is therefore vulnerable to countertransference. Analysts may find themselves succumbing to acting on these feelings, thereby helping the client to sabotage progress and avoid change. Experienced and talented psychoanalysts, however, can use countertransference to understand and help their clients.

Freud learned that the analyst must resist certain temptations in order for therapy to be most effective. When the client is free-associating, the analyst should resist the impulse to offer interpretations immediately. Interpretations are explanations such as, "The reason you are experiencing inappropriate fear is that the dread of your father, instilled in you when he treated you harshly, has generalized to include others who resemble your father in their authority over you." The technique of interpretation was conceived as the principal manner in which the insights deduced by the psychoanalyst were to be imparted to the patient. The analyst's task is to listen carefully and respectfully, enabling the client to broaden and deepen transferential distortions or denials of reality, before offering interpretations.

Modern psychoanalysis evolved for several reasons. First, clients who are especially vulnerable, only marginally functional, or clearly at risk display tremendous fears and intractable resistances. Until such time as substitute behaviors become available to them and they are able to relax and ultimately discard their defenses, their resistances (defenses manifested during sessions) should be respected, understood, and used by their therapists. Modern psychoanalysis attempts to do so. Second, vulnerable clients demonstrate exquisite sensitivity to attempts to direct their activities or even to provide suggestions. They have received insufficient practice in running their lives and need more autonomy, not less. They have received too many orders and need fewer directives. Modern analysts try to minimize directions or suggestions (even when these are requested or demanded), to limit what they say to the briefest and fewest interventions, to avoid confrontations if possible, and to refrain from providing interpretations until clients give evidence of having achieved the maturity to accept and profit from them. Many practitioners believe that when clients are able to use interpretations, the clients themselves are more likely to originate them.

Applications

The essential distinction between psychoanalysis (both classical and modern) and other modalities of psychotherapy (including psychoanalytically oriented ones) rests not upon frequency of sessions or whether the client uses the couch rather than sitting face-to-face with the therapist but upon whether the treatment employs free association, transference, and resistance (embracing the preconscious and unconscious) and is an ego-maturational process. Analytic clients are assisted in becoming aware of alternatives, including new ways of viewing life events.

Psychoanalysis tries to determine the ways clients avoid seeing and doing the things of which they are capable. Other therapies tend to be problem-oriented.

Modern psychoanalysis deals with a much wider spectrum of client pathologies than classical psychoanalysis and is prepared to work with clients whom current classical psychoanalysts regard as unsuitable for treatment. Modern analysts modify the fundamental rule of free association and ask clients to say whatever they wish, rather than demanding that they say everything. The objective of enabling clients to be able to say everything, however, remains the same. When the ego strength of clients permits, modern analysts say more, but they prefer asking questions to answering them or making statements.

Making statements tends to be regarded as objectionable either because unsolicited statements are interpreted by the client as being lectures (which is often true) or because they derive from the therapist's own insecurities. Self-initiated requests for help are considered evidence of progress. Questions asked by clients frequently conceal other questions they may have. Answering the original question makes it less likely that the other, more important questions will be unearthed.

Modern analysts attempt to reverse the direction of clients' self-injurious acts. Attacking oneself is conceptualized as the "narcissistic defense" intended to protect "the object" (Freud's term for the "other," the most typical example of which is the first object of the infant's rage, the nurturer). Anger is precipitated by frustration, unmodulated rage by abuse or neglect. Modern analysts offer themselves as legitimate objects of criticism. All communications of disapproval are accepted. Acts are discouraged, although intentions are unobjectionable and may be explored if the client can tolerate exploration. It is all right to *want* to destroy or hurt, but it is not all right to *do* either. Clients may be assisted to see such acceptable alternatives to destructive actions as hostile thoughts, negative feelings, and destructive fantasies. Clients are seen as engaging in the most harmful behaviors when they damage themselves—physically, psychologically (destroying their minds and requiring institutionalization), or both. Progress is demonstrated when clients start attacking others and diminish self-attacks. Further progress consists of their proceeding toward verbalization of their feelings, concerns, and wishes; diminishing ego-oriented attacks upon others even if expressed in words; and attempting to confine attacks solely to the analyst, who is expected to deal more constructively with them than laypersons are.

Attacks are difficult, even for professionals, especially when taken personally. Therapeutic work is made more tolerable, and even challenging, by personal analysis and supervision that enable practitioners to view the attacks as part of transference, a generalized phenomenon and a component of desirable progress. Analysts view abuse of themselves by clients, however (as opposed to verbal attacks), as harmful to both parties and as treatment-destructive. When one injures another, one injures oneself. Analysts insist that both they and their client or clients (partners in a dyad, or members of a family) be treated respectfully.

One significant difference between classical and modern psychoanalysis concerns the attitude toward, and use of, countertransference. Both classical and modern analysts recognize the inevitability and importance of countertransference.

Freud, recognizing its perils, urged that it be obliterated as completely as possible; this was unrealistic. Moreover, countertransference can be used productively. Modern analysts, in fact, regard countertransference as the most valuable source of information about their clients and as the key to the most effective treatment. The comprehension of objective countertransference (feelings induced in the analyst by a client's problems) permits the analyst to understand more fully what the client is experiencing and formulate a treatment strategy. The recognition and correction of subjective countertransference (preexisting personal problems) via personal analysis and supervision afford measures to prevent analysts' blindnesses, vulnerabilities, and irrational expectations from interfering with their responsibilities for the welfare of their clients.

Classical psychoanalysts tend to agree with Freud that persons with particular kinds of mental illness (such as schizophrenia or narcissistic disorders) are not analyzable. They also regard interpretations as one of the foundations of treatment. In contrast, modern analysts regard no one with a psychologically reversible disorder as untreatable. In treating more vulnerable and remote clients, they have learned that interpretations can be viewed as attacks by such clients. They refrain from employing such feedback until they are sure that interpretations can be tolerated by the client.

Modern psychoanalysts are aware that thoughts and feelings play important roles in causing, exacerbating, ameliorating, treating, and curing somatic (that is, physical or bodily) conditions. Modern analysts have sought ways of treating organic disease (such as cancer) psychoanalytically—in effect considering such conditions psychologically reversible disorders rather than disease entities that are unchangeable.

Modern analysts are aware that a client's failure to make progress with a certain analyst does not necessarily mean that the individual will never have success in therapy. It may simply mean that the client does not have a proper "fit" with the analyst. Working with a different analyst, the client may have quite a different experience. Again, the effects of countertransference are important; in a curative relationship, the analyst should be able to experience feelings induced by the client and return to the client the necessary therapeutic feelings—appropriately spaced and in correct dosages—that lead to progress and eventual recovery.

In both classical and modern psychoanalysis, the intensity of treatment (the number of sessions per week) is often the result of a number of variables. These may include the particular benefits the client hopes to receive, how rapidly progress is desired, the ability of the client to afford the practitioner's fees, and the time available to both. One exception to this rule would be that modern analysts prefer limiting sessions to once a week at the beginning of therapy in order to assess whether the ego strength of the client is adequate to cope with the more intense and unsettling regression that occurs with more frequent sessions. Fees, like session frequency and treatment length, vary considerably. Professionals often employ a "sliding scale" of fees to accommodate people's varying abilities to afford treatment.

Perspective and Prospects

Before Sigmund Freud developed his theory at the beginning of the twentieth century, methods of dealing with psychological interferences with functioning (what are now called neuroses, character disorders, borderline conditions, and even some schizophrenias) as well as with more severe conditions (such as psychoses, narcissistic disorders, and chronic schizophrenias) lacked coherence and effectiveness. Functional impairment was perceived as being physiologically caused, even if a precise cause could not be located; it was therefore seen as requiring physiological treatment. Impairments that were psychological went untreated, often even undetected. The care of the more serious mental illnesses was at best ineffectual and at worst cruel and inhumane.

Freud confronted people with the concept that, in the psychic realm, they are not masters but servants of hidden drives and desires. Irrationality was suddenly seen as a universal condition. Freud's patients were upper-middle-class people who came for treatment of such conditions as "hysteria," in which psychic conflict is converted into a curtailment of functioning, such as blindness or an inability to perform particular motor skills. Other conditions he treated included autonomous episodes (such as sleepwalking) and anatomic anomalies. One anatomic anomaly, for example, is glove anesthesia, in which a patient has no sense of feeling in an area roughly corresponding to that covered by a glove; since no local injury could cause such a loss of feeling, it is a symptom of a functional disorder, most likely hysteria. All of these lacked an organic explanation. Freud provided a blueprint for such mental disorders: the psychodynamic method of explaining them and the psychoanalytic method of treating them. He also furnished concepts of development (of both individuals and groups—even civilizations) and personality, as well as two explanations of why dreams occur. His work ultimately led to countless other ways of explaining people, the events in which they participate (history), and the artifacts they create (literature, art, and music).

Freud has had many critics, and for good reason. His view of females, for example, was clearly flawed; it reflected the male-dominated society of his day that subordinated women and underestimated their potentials for accomplishment and creativity. Nevertheless, Freud's impact has been substantial and pervasive, and most of his contributions are incorporated into theory and practice.

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Elliott P. Schuman

See also:

Analytical Psychotherapy; Cognitive Behavior Therapy; Cognitive Therapy; Person-Centered Therapy; Psychotherapy: Effectiveness; Psychotherapy: Goals and Techniques; Psychotherapy: Historical Approaches to Treatment.

PSYCHOSIS

Type of psychology: Psychopathology
Fields of study: Cognitive processes; social perception and cognition

Psychosis is the most severe mental disorder, in which the individual loses contact with reality and suffers from such symptoms as delusions and hallucinations.

Principal terms

DELUSION: a false belief that is held despite strong evidence to the contrary
FUNCTIONAL PSYCHOSES: psychoses for which no organic causes can be found
HALLUCINATION: a false perception of one of the five senses that is held despite strong evidence to the contrary
ORGANIC PSYCHOSES: psychoses that can be attributed directly to a problem in the structure, functioning, or chemistry of the brain

Causes and Symptoms

The individual with a psychosis displays disordered thinking, emotion, and behavior. The individual fails to make sense of his or her surroundings, reacts inaccurately to them, and develops false thoughts or ideas about them. The resulting behavior can be described as peculiar, abnormal, or bizarre. Psychosis runs in families and most often first appears in late adolescence or early adulthood. There are medical and physical causes of some psychoses and some for which the cause is unknown. Psychosis describes a group of symptoms that can be part of several formal psychiatric diagnoses to include schizophrenia. Psychotic symptoms are characterized by delusions, hallucinations, disturbances of movement, and/or speech disturbances.

Delusions are false beliefs that are held despite strong evidence to the contrary. An example of an extreme delusion might be a man who believes that someone has planted a radio transmitter in his brain that sends signals to creatures on Mars. Hallucinations are false perceptions of the senses that, like delusions, are held despite strong evidence to the contrary. Hallucinations can involve any of the five senses. Examples of extreme hallucinations include feeling as if one is covered by ants; seeing green cows walking through the wall; hearing voices that do not exist; and smelling a constant odor when none is present.

Disturbances of movement can occur with psychoses. For example, a woman may become very exaggerated in her movements or, conversely, may become motionless for periods of time. These disturbances of movement are clearly bizarre and unnatural. Finally, speech disturbances are very common in psychoses. A man might speak in a way which is not understandable to others. He may carry on a conversation in which he believes that he is communicating normally but without making sense. Alternatively, speech might be clear but the individual shifts from one unrelated idea to another without being aware of doing so. Another psychotic symptom is severe emotional turmoil described as intense shifting moods with accompanying feelings of being confused.

Treatment and Therapy

The treatment of psychoses involves removing or correcting the causes of the psychosis when possible. Psychoses are often categorized as organic or functional, which provides a way to communicate the cause of the psychosis and thereby the appropriate treatment. Organic psychoses are attributable to disturbances in the brain. These psychoses can be attributed directly to a problem in the structure, functioning, or chemistry of the brain. Various physical conditions and abnormalities can lead to psychosis, including thyroid disorders, drug reactions, infections, epilepsy, tumors, and circulatory disorders (for example, strokes). The treatment of organic psychoses involves removing or correcting the causes of the psychosis. In the case of a psychosis caused by a disorder of the thyroid gland, the individual might be prescribed medications to correct the thyroid problem or have the gland surgically removed. Certain prescription and illegal drugs can cause a psychosis; these include cocaine, alcohol, heart medications, and pain medications. In these situations, the psychotic symptoms are often eliminated when the medication or drug is discontinued. Organic psychoses may be the result of deteriorating physical conditions, such as Alzheimer's disease. Such a psychosis is typically nonreversible and is treated with tranquilizing medications to decrease the individual's discomfort and disruptive behaviors.

Functional psychoses are those psychoses for which no organic causes can be found. Often the psychotic symptoms are part of a more traditional psychiatric condition such as schizophrenia or depression. The mainstay of the treatment of functional psychoses is medication therapy. As with the organic psychoses in deteriorating physical conditions, tranquilizers are the most appropriate first-line treatment for psychotic symptoms. The goal of therapy is to decrease the frequency and disruption of psychotic thoughts and behaviors.

Individual, group, and family psychotherapy are also a major part of treating individuals with functional psychosis or organic psychosis in deteriorating physical conditions. These therapies help to ensure compliance with the medication therapy, decrease the tendency for relapse, and can even lead to the reduction in the amount of medication required to relieve the individual's symptoms. The goal of psychotherapy is to help the individual maintain optimal functioning.

Occasionally, the patient with a psychosis may require inpatient hospitalization. The experience of hallucinations or delusions can be particularly distressing and can lead to a severe depression. Furthermore, these hallucinations and delusions might be of a homicidal or suicidal nature. While hospitalization is not required in treating individuals with psychosis, when individuals become a danger to themselves or to others, a brief inpatient hospitalization may be required to stabilize the patients and return them to a higher state of functioning. During hospitalization, patients are treated with medication therapy along with individual, group, or family therapy until they can be safely returned to their environments. Occasionally, patients with psychoses have multiple episodes during their lives requiring numerous inpatient hospitalizations.

Perspective and Prospects

Approximately 2 percent of all people in the world will develop a psychosis sometime during their lifetime. Although psychoses typically first appear in late adolescence or early adulthood, they may begin in middle to late life as well. The symptoms are apparently equally common in males and females. Because there is a strong family pattern to the psychoses, some have suggested a genetic predisposition, and such evidence has been found. Environmental factors, however, such as home environment, parenting, and traumatic life events may also play a role in some psychoses.

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Oliver Oyama

See also:

Addictive Personality and Behaviors; Alcoholism; Dementia; Depression; Neurosis; Paranoia; Schizophrenia; Substance Abuse.

PSYCHOSOMATIC DISORDERS

Type of psychology: Psychopathology
Fields of study: Cognitive processes; organic disorders; stress and illness

Psychosomatic disorders are physical disorders produced by psychological factors such as stress, mental states, or personality characteristics. A variety of psychological or psychotherapeutic interventions have been developed to alter the individual's ability to cope with stressful situations and to change the personality or behavior of the individual.

Principal terms

BEHAVIOR MODIFICATION: therapeutic techniques based on operant conditioning methods employing rewards for desirable behaviors and nonreinforcement or punishment for undesirable behaviors

BIOGENIC: of biological or physical origin

BIOPSYCHOSOCIAL: combining biological, psychological, and social factors

COGNITIVE: having to do with thought processes, such as images, memories, thinking, and problem solving

PSYCHOGENIC: of psychological origin

TYPE A BEHAVIOR PATTERN: a pattern of personality characteristics which leads to behavior that is thought to contribute to coronary heart disease

TYPE C BEHAVIOR PATTERN: a pattern of personality characteristics thought to contribute to development of cancer

Causes and Symptoms

Psychosomatic disorders are physical disorders which are caused by, or exacerbated by, psychological factors. These psychological factors fall into three major groups: stress resulting from encounters with the environment, personality characteristics, and psychological states. It should be noted that psychosomatic disorders are different from two other conditions with which they are often confused. Psychosomatic disorders are real—that is, they are actual physical illnesses that have underlying psychological causes or that are made worse by psychological factors. In somatoform disorders (such as hypochondriasis), by contrast there is no physiological cause; another condition, malingering, is the faking of an illness.

Psychosomatic disorders can affect any of the organ systems of the body. Certainly, not all physical disorders or illnesses are psychosomatic disorders; in many cases, an illness or physical disorder is caused entirely by biogenic factors. In many other cases, however, there is no question about the importance of psychogenic factors. The American College of Family Physicians has estimated that 90 percent of the workload of doctors is the result of psychogenic factors.

There are many familiar and common psychosomatic disorders that can affect the body's various organ systems. Included among them are skin disorders, such as acne, hives, and rashes; musculoskeletal disorders, such as backaches, rheuma-

toid arthritis, and tension headaches; respiratory disorders, such as asthma and hiccups; and cardiovascular disorders, such as hypertension, heart attacks, strokes, and migraine headaches. Other disorders have also been related to psychological factors, including anemia, weakening of the immune system, ulcers, and constipation. Genitourinary disorders such as menstrual problems, vaginismus, male erectile disorder, and premature ejaculation are included among psychosomatic disorders, as are certain endocrine and neurological problems.

The relationship between the mind and the body has long been the subject of debate. Early societies saw a clear link between the mind and the body. Early Greek and Roman physicians believed that body fluids determined personality types and that people with certain personality types were prone to certain types of diseases. Beginning during the Renaissance period and continuing almost to today, the dominant line of thought held that there was little or no connection between the mind and the body. Illness was seen as the result of organic, cellular pathology. Destruction of body tissue and invasion by "germs," rather than personality type, were seen as the causes of illness.

Sigmund Freud's work with patients suffering from conversion hysteria began to demonstrate both the importance of psychological factors in the production of physical symptoms of illness and the value of psychological therapy in changing the functioning of the body. Research conducted in the 1930's and 1940's suggested that personality factors play a role in the production of a variety of specific illnesses, including ulcers, hypertension, and asthma.

Today, the ascending line of thought can be described as a biopsychosocial view of illness, which begins with the basic assumption that health and illness result from an interplay of biological, psychological, and social factors. A man who suffers a heart attack at age thirty-five is not conceptualized simply as a person who is experiencing the effects of cellular damage caused by purely biological processes that are best treated by surgery or the administration of drugs. The victim, instead, is viewed as a person who also has engaged in practices that adversely affected his health. In addition to drugs and surgery, therefore, treatment for this man might include changing his views on the relative value of work and family as well as emphasizing the importance of daily exercise and diet. If he smokes, he will be encouraged to quit smoking. He might receive training in stress management and relaxation techniques.

Few people today would argue with the proposition that stress is a fact of life. Most have far more experience with stressors—those events that humans find stressful—than they would willingly choose for themselves. Stress is one of the major causes of psychosomatic disorders. Stressors are often assumed to be external events, probably because stressful external events are so easily identified and recognized. Many stressors, however, come from within oneself. For example, one is often the only person who demands that one meet the strict standards that one has set for oneself, and frequently judges oneself more harshly than anyone else for failing to meet those standards. Especially since the late 1970's and early 1980's, cognitive psychologists have focused attention on the internal thinking processes, thoughts, values, beliefs, and expectations that lead people to put

unnecessary pressure on themselves that results in the subjective sense of stress.

Another contribution made by cognitive psychologists was the realization that a situation can be a stressor only if the individual interprets it as stressful. Any event that people perceive as something with which they can cope will be perceived as less stressful than an event that taxes or exceeds their resources, regardless of the objective seriousness of the two events. In other words, it is the cognitive appraisal of the event, coupled with one's cognitive appraisal of one's ability to deal with the event, rather than the objective reality of the event, that determines the degree to which one subjectively experiences stress.

Continuing the tradition of the early Greek and Roman physicians, modern personality theorists have often noted that certain personality characteristics seem to be associated with a propensity to develop illness, or even specific illnesses. Other personality characteristics appear to reduce vulnerability to illness. One of the best-known examples of a case in which personality characteristics affect health is that of the Type A behavior pattern (or Type A personality). The person identified as a Type A personality typically displays a pattern of behaviors which include easily aroused hostility, excessive competitiveness, and a pronounced sense of time urgency. Research suggests that hostility is the most damaging of these behaviors. Type A personalities typically display hyperreactivity to stressful situations, with a corresponding slow return to the baseline of arousal. The hostile Type A personality is particularly prone to coronary heart disease. By contrast, the less-driven Type B personality does not display the hostility, competitiveness, and time urgency of the Type A personality, and is about half as likely to develop coronary heart disease.

Studies conducted in the 1970's, and especially in the 1980's, have led to the suggestion that there is a Type C, or cancer-prone, personality. It is well known that many natural and artificial substances produce cancer, but many researchers have also noted that people with certain personality characteristics are more likely to develop cancer, are more likely to develop fast-growing cancers, and are less likely to survive their cancers. These personality characteristics include repression of strong negative emotions, acquiescence in the face of stressful life situations, inhibition, depression, and hopelessness. Encounters with uncontrollable stressful events appear to be particularly related to the development of cancer. In addition, some research suggests that not having strong social support systems contributes to the likelihood of developing cancer.

Recent research has begun to focus on the possible interaction between risk factors for cancer. For example, depressed smokers are many more times likely to develop smoking-related cancers than are either nondepressed smokers or depressed nonsmokers. One theory suggests that the smoking provides exposure to the carcinogenic substance that initiates the cancer, and depression promotes its development.

It has been suggested that hardiness is a broad, positive personality variable that affects one's prospensity for developing stress-related illness. Hardiness is made up of three more specific characteristics: commitment (to become involved in things that are going on around oneself), challenge (accepting the need for change and seeing new opportunities for growth in what others see as problems), and

control (a belief that one's actions determine what happens in life and that one can have an effect on the environment). It has been hypothesized that people who possess these characteristics are less likely to develop stress-related disorders because they view stressful situations more favorably than do other people. Commitment and control seem to be more influential in promoting health. Locus of control is a related concept which has received much attention.

Locus of control refers to the location where one believes control over life events originates. An external locus of control is outside oneself; an internal locus of control is within oneself. The individual who perceives that life events are the result of luck, or are determined by others, is assuming an external locus of control. The belief that one's efforts and actions control one's own destiny reflects an internal locus of control. Internalizers are thought to be more likely to assume responsibility for initiating necessary lifestyle changes, to employ more direct coping mechanisms when confronted with stressful situations, and to be more optimistic about the possibility of successfully instituting changes that are needed. This last characteristic is sometimes called self-efficacy. Self-efficacy refers to the belief that one is able to do what is needed and attain the intended effect.

Martin E. P. Seligman began to investigate the phenomenon of learned helplessness in 1964. In part, his interest was fueled by his observations of the life and fate of his father, who suffered a series of devastating strokes. Seligman found that when faced with a situation in which they can do nothing to prevent or escape from what is happening to them, both dogs and people often simply lie down and take it (literally or figuratively). They learn the attitude of helplessness. He also found that helplessness can be unlearned, but that it is usually difficult to do so because the individual has quit trying to escape or avoid the situation. A decade later, Seligman and his colleagues began to investigate the question of why some people (and dogs) did *not* become helpless. They concluded that people (and, presumably dogs) who adopt a pessimistic explanatory style become helpless when adversity is encountered, but that an optimistic explanatory style prevents the development of learned helplessness.

Seligman has described the chain of events by which the pessimistic explanatory style may lead to illness. Beginning with unfortunate experiences such as a serious loss, defeat, or failure, the person with a pessimistic explanatory style becomes depressed. The depression leads to depletion of a neurotransmitter substance called catecholamine, and the body increases the secretion of endorphins—the body's own naturally produced form of morphine. When receptors in the immune system detect the increased presence of the endorphins, the immune system begins to turn itself down. Any disease agents that are encountered while the immune system is weakened have a much greater likelihood of overwhelming the remaining defenses of the immune system. This process is very similar to the situation faced by the individual who contracts the human immunodeficiency virus (HIV) and develops acquired immunodeficiency syndrome (AIDS). When the immune system of the person with AIDS is unable to function effectively, opportunistic infections against which the body could normally defend itself are able to take over. It is those opportunistic infections that kill, rather than the HIV or AIDS itself.

Treatment and Therapy

Since the hyperreactivity of the Type A behavior pattern is thought to be at least partially genetically based, there are probably some limits on what can be done to reduce the incidence of coronary heart disease resulting from physiological hyperreactivity. There is, however, much that can be done in other areas. Persons who are prone to such disorders can be taught to exercise properly, eliminate unhealthy dietary practices, and reduce or quit smoking. Of particular interest to psychologists is the opportunity to help these individuals by teaching effective coping strategies, stress management, values training, behavior modification to control Type A behaviors, and cognitive control of depression and other negative emotions.

Studies by psychologists have demonstrated a wide range of interventions that can be helpful in reducing the danger of cardiovascular disease in Type A personalities. Exercise produces positive effects on physiological functioning, appears to improve general psychological functioning, and reduces Type A behaviors. Cognitive behavioral stress management techniques have been shown to reduce behavioral reactivity. Values training focusing on changing the person's perceptions of the importance of occupational success and competitiveness has enabled them to concentrate on more beneficial behaviors. Behavior modification techniques have been used to alter the kinds of behavior that appear to be most dangerous for the Type A person, substituting other behavioral responses in place of explosive speech and hostility. Cognitive control of emotions produces more rapid physiological recovery after stress.

Efforts by psychologists to help the Type C personality might focus on assertiveness training and altering the person's belief that it is not appropriate to display strong negative emotions, such as anger or frustration. Teaching the Type C person to fight back against stressful life situations, rather that acquiescing to them, might also be of benefit. Imagery therapy appears to be beneficial to some cancer patients, perhaps for that reason, but also because it promotes the development of learned optimism in place of learned pessimism. Promoting the development of effective social support systems is another means for psychologists to have a positive impact on the fight against cancer.

Perspective and Prospects

Psychosomatic disorders are not themselves considered mental disorders. While the psychological factors that cause the physical illness are unhealthy or abnormal from a psychiatric or psychological perspective, the psychosomatic disorder is a real, physical illness or condition controlled by real, physical processes.

Somatoform disorders, on the other hand, are mental disorders which manifest themselves through real or imagined physical symptoms for which no physical cause exists. These symptoms are not intentionally produced by the client. Conversion disorder is one of the somatoform disorders that laypeople often confuse with psychosomatic disorders. Unlike the case with psychosomatic disorders, there is no organic or physiological pathology that would account for the presence of the physical symptoms displayed by the person suffering from a conversion disorder. Hypochondriasis is the second somatoform disorder that is often confusing for

laypeople. The person suffering from hypochondriasis fears or believes that he or she has the symptoms of a serious disease, but the imagined "symptoms" are actually normal sensations or body reactions which are misinterpreted as symptoms of disease.

Malingering is the third condition which is sometimes confused with psychosomatic disorders. The person who is malingering is faking illness, and is either reporting symptoms that do not exist at all or which are grossly exaggerated. The malingering is motivated by external goals or incentives.

By eliminating many of the diseases that used to be epidemic, especially those which killed people early in life, medical science has increased the average life expectancy of Americans by about thirty years since the beginning of the twentieth century. Eliminating the psychological factors that cause psychosomatic disorders holds promise for another increase in average life expectancy in the next few decades. Heart disease, cancer, and strokes are the top three killer diseases in the United States, and each has a powerful psychosomatic component. The reduction in human suffering and the economic benefits that can be gained by controlling nonfatal psychosomatic disorders is equally promising.

Cognitive and health psychologists have, particularly since the 1970's, tried to determine the degree to which cognitive psychotherapy interventions can boost immune system functioning in cancer patients. They have also used behavioral and cognitive therapy approaches to alter the attitudes and behaviors of people who are prone to heart disease and strokes with considerable success. In the near future, they can be expected to focus their efforts on two major fronts. The first will involve further attempts to identify the psychological factors which might increase people's propensity to develop psychosomatic disorders. The second will involve continuing efforts to develop and refine the therapeutic interventions intended to reduce the damage done by psychosomatic disorders, and possibly to prevent them entirely.

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John W. Nichols

See also:

Abnormality: Biomedical Models; Cognitive Behavior Therapy; Cognitive Therapy; Depression; Hypochondriasis, Conversion, Somatization, and Somatoform Pain; Stress; Stress: Coping Strategies; Stress: Physiological Responses.

PSYCHOSURGERY

Type of psychology: Psychotherapy
Fields of study: Biological treatments

Psychosurgery is a method for treating certain mental disorders by performing surgical operations on the brain, either by severing the connections between different parts of the brain or by destroying brain tissue in specific areas. Psychosurgery was popular from about 1935 to 1960; it has now largely been replaced by drugs. It remains a highly controversial procedure.

Principal terms

BIOETHICS: includes the study of the moral, ethical, and social issues posed by treating mental disorders by biological means, especially psychosurgery

BIOLOGICAL DETERMINISM: the belief that behavior is determined or caused by a corresponding set of conditions within the brain

BIOMEDICAL MODEL: the belief, similar to biological determinism, that mental illness is the result of dysfunction in certain areas of the brain

BIOMEDICAL TREATMENT: a therapy for mental disorders that is based on altering brain function; includes drugs, electroconvulsive shock, and psychosurgery

LOBOTOMY: the archetypical psychosurgical technique for destroying brain tissue; although it is but one of several methods, it was the first and most commonly performed and remains the most notorious

Overview

Psychosurgery, also referred to as psychiatric surgery, psychiatric neurosurgery, or functional neurosurgery, is a medical procedure intended to alleviate certain mental illnesses by destroying brain tissue in selected areas of the brain. Psychosurgery is based on the biomedical model of mental illness, which posits that mental states and ensuing behavior are the result of activity in the nervous system. That is, at the most fundamental level, human thoughts and actions are biologically determined by the functioning nervous system. Therefore, mental illness and abnormal behavior are caused by abnormalities in the nervous system: by the release of certain neurotransmitters and/or by abnormalities in brain structure. If it is assumed that the basis of a mental illness is an abnormality of the nervous system, the appropriate therapy is biomedical: The nervous system is treated directly to alleviate the problem. Biomedical treatments include psychosurgery, electroconvulsive shock, and drugs.

Contemporary psychosurgery was founded in 1935 by the Portuguese neurosurgeon António Egas Moniz. Egas Moniz attended a symposium in August, 1935, at which Carlyle Jacobsen reported anecdotally a marked change in the level of emotionality of a chimpanzee following destruction of a large part of the frontal lobe of the cerebral cortex. Formerly, the chimpanzee had been highly emotional and obstinate; following the operation, the chimpanzee appeared calm and coop-

Contemporary psychosurgery was founded in 1935 by the Portuguese neurosurgeon António Egas Moniz, who was awarded the Nobel Prize in Physiology or Medicine for his work. (©The Nobel Foundation)

erative. Egas Moniz inquired of Jacobsen whether the technique could be used to relieve anxiety states in humans; less than three months later, in November, 1935, Egas Moniz performed his first operation.

In these operations, two holes were drilled into the skull of mental patients. Initially, alcohol was injected through the holes directly into the frontal lobes. Commencing with the eighth operation, however, a scalpel-like instrument was inserted through the hole into the frontal lobes, and a wire loop was then extended from the scalpel and rotated, destroying whatever nerve tissues it contacted. Egas Moniz coined the term "psychosurgery" to describe this kind of treatment. He referred to his particular technique as prefrontal leucotomy (from the Greek *leuco*, meaning "white matter," or nerve fibers, and *tome*, meaning "knife"). The instrument he used was called a leucotome.

Egas Moniz's claims of success in alleviating extreme states of emotionality with this procedure stimulated worldwide interest, excitement, and practice. About thirty-five thousand operations were performed in the United States from 1936 through 1978, with perhaps double that number worldwide. Psychosurgery was seen as a quick and effective method for alleviating certain commonly occurring mental illnesses which could not be treated rapidly and effectively by any other means, as well as providing a partial solution to the problem of overcrowding in mental hospitals.

As other psychosurgeons began performing psychosurgery, new techniques were developed that were believed to be improvements. Egas Moniz's prefrontal leucotomy, which did not permit precise location of the area to be cut, was superseded by the prefrontal lobotomy, developed by the Americans Walter Freeman and James Watts in 1937. Larger holes were drilled into both sides of the skull, and a leucotome was inserted and precisely moved in a sweeping motion through the frontal lobe. In 1948, Freeman introduced the transorbital lobotomy. This procedure involved inserting an icepick-like knife through the top of the eye socket into the brain and then swinging it back and forth. This procedure was quick and efficient and could be performed as an office procedure. Freeman said that he could perform fifty operations in a day.

The lobotomy was handicapped, however, by two important limitations. Destruction of the frontal lobe usually produced a number of serious side effects. Although the lobotomy was perhaps more precise than the leucotomy, the psychosurgeon still could not know with certainty exactly what part of the brain was being excised. A considerable risk of damaging other areas of the brain or of inducing hemorrhaging was present.

Later technological innovations and increased understanding of the structure of the nervous system permitted more precise and less invasive surgical procedures. An apparatus called the stereotaxis allowed precise mapping of the brain. Using this instrument, Ernest Spiegel and Henry Wycis inserted electrodes into previously inaccessible parts of the brain and destroyed a small area of tissue with electricity. This procedure initiated surgery on small and precisely located areas of the brain other than the frontal lobes, thus minimizing side effects. Nevertheless, over its more than fifty-year history, the vast majority of psychosurgical operations have been lobotomies.

Applications

As John Kleinig observes in *Ethical Issues in Psychosurgery* (1985), nearly every brain structure has at some point been subject to a psychosurgical procedure.

Psychosurgery involving various brain structures has been performed in the belief that specific abnormal mental states and behaviors that are unaffected by other treatments can be alleviated through psychosurgery. According to Kleinig, psychosurgery has been used to treat many disorders.

Psychosurgery has not in general produced favorable results with schizophrenia. Drugs are the preferred biomedical procedure. Schizophrenia is still occasionally treated by psychosurgery, but only in those cases with a high emotional component—that is, with affective behaviors or mood states. Psychosurgery has been most commonly used with cases characterized by severe and disabling depression, obsessive-compulsive disorders, and acute tension and anxiety. The purpose is to even or level out the patient's feelings and emotions. As with schizophrenia, drugs are the preferred mode of treatment for these disorders; however, psychosurgery may be a consideration for those patients who do not respond appropriately to drugs and whose dysfunction is extremely severe.

Anorexia nervosa is the chronic refusal to eat sufficient food to maintain normal health. It has been viewed by some as an extreme compulsion which may be related to a disorder of the limbic system. Psychosurgery has been performed in extreme cases. Hyperactive syndrome, or attention-deficit hyperactivity disorder, in children has been viewed by some as a disorder that is a genetically based brain dysfunction, and psychosurgery has been performed when other treatments have failed. Uncontrollable rage and/or aggression is believed to be regulated by the amygdaloid body in the limbic system. Moderately favorable results have been reported with amygdalectomies performed on both adults and children.

Substance abuse and addictions can be viewed as analogues to compulsions. The purpose of psychosurgery is to reduce the strength of the desire of the addiction's object. Data indicate favorable outcomes for certain groups of alcoholics and drug addicts, but the efficacy of the procedure with obesity and compulsive gambling is lacking.

Psychosurgery has been performed on pedophiliacs (child molesters) and others who have engaged in violent sexual offenses, in order to remove the desire to perform such acts. The operation has focused on the hypothalamus, a structure in the limbic system. In some cases, the operation has succeeded, probably by producing a reduction of sexual desire in general.

The anterior angulate region of the limbic system, which is believed to be involved with the perception of pain, has been subjected to psychosurgery. Some favorable results have been obtained, which some believe are the result of the alleviation of depression or obsessive behaviors associated with intractable pain. Some pain specialists believe that psychosurgery is not appropriate in any instance.

It is apparent from this survey that psychosurgery has been employed for a wide variety of disorders and performed upon a wide variety of patient populations. With its introduction by Egas Moniz in the 1930's, and its vigorous advocacy by Egas Moniz in Europe and by Freeman and Watts in the United States, psychosurgery was received with great hope and expectation. It was seen as providing a fast, easy, and inexpensive way of treating certain mental illnesses that were unresponsive to any alternative treatments available at the time. In addition, if institutionalized

patients could be successfully treated by psychosurgery, they could be released, thus simultaneously alleviating the abysmal overcrowding and intolerable conditions of mental institutions and returning the patients to a productive life in society. In fact, Egas Moniz won the Nobel Prize in Physiology or Medicine in 1949 in recognition of his work. The citation states: "Frontal leucotomy, despite certain limitations of the operative method, must be considered one of the most important discoveries ever made in psychiatric therapy, because through its use a great number of suffering people and total invalids have recovered and have been socially rehabilitated."

Perspective and Prospects

Egas Moniz's Nobel citation may be contrasted with David L. Rosenhan and Martin E. P. Seligman's assessment of lobotomy in the second edition of their book *Abnormal Psychology* (1989): "There is the danger that physicians and patients may become overzealous in their search for a quick neurological cure. . . . [T]he disastrous history of frontal lobotomies . . . should serve as a warning."

Although the biomedical model is a sound theory, and biological treatments have proved to be valuable and worthwhile, in retrospect, Rosenhan and Seligman were correct. Lobotomies were, in general, "disastrous," and their sorry history provides a textbook example of how not to bring a new medical procedure on-line. Irreversible destruction of brain tissue and side effects were produced by procedures of highly questionable effectiveness.

The goals and desires of the early psychosurgeons may have been laudable, but their methods were not. Within three months of hearing Jacobsen's anecdotal account, Egas Moniz was performing lobotomies, despite the lack of clear evidence from prior animal experimentation that might at least support the irreversible destruction of the brain tissue. Egas Moniz performed no animal experimentation himself. He declared the frontal lobes to be the area of the brain responsible for the mental disorders to be treated by psychosurgery. His reading of the scientific literature to support his beliefs, however, was spotty and selective, and contradictory evidence was ignored. Furthermore, there was present a large animal and human literature clearly demonstrating a range of serious side effects and deficits produced by lesions of the frontal lobes, such as apathy, retarded movement, loss of initiative, and mutism. Yet, with no supporting evidence, Egas Moniz insisted these side effects were only temporary. In fact, they could be permanent. Egas Moniz's initial report on twenty patients claimed a cure for seven, lessening of symptoms in six, and no effect on six. An impartial review of these cases by Stanley Cobb, however, concluded that only one of the twenty cases provided enough information to allow a judgment.

Mercifully, the introduction of psychoactive drugs and growing criticism of lobotomies effectively brought them to an end by the late 1950's. Psychosurgery is still occasionally performed; its advocates argue that newer techniques are used that avoid the frontal lobes, that the procedure is based upon a good understanding of how the nervous system functions, that side effects are minimal, that its use is much more strictly monitored and regulated, and that it is viewed only as a

treatment of last resort. Nevertheless, psychosurgery still remains highly controversial. Many practitioners and scientists are skeptical about its effectiveness, arguing that destruction of any brain tissue can produce unavoidable side effects; psychosurgery is believed by these individuals to be an ethically and morally unacceptable procedure of dubious value.

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Laurence Miller

See also:

Abnormality: Biomedical Models; Aggression: Reduction and Control; Anxiety Disorders; Electroconvulsive Therapy; Lobotomy; Madness: Historical Concepts; Psychoactive Drug Therapy; Schizophrenia.

PSYCHOTHERAPY
Children

Type of psychology: Psychotherapy
Fields of study: Behavioral therapies; group and family therapies; psychodynamic therapies

Psychotherapy with children involves the use of psychological techniques in the treatment of children with behavioral, cognitive, or emotional disorders. The specific focus of treatment varies and may involve children only, parents only, or a combination of these individuals.

Principal terms

EXTERNALIZING DISORDERS: children's psychiatric disorders that are likely to disrupt the lives of individuals with whom they come in contact

FAMILY THERAPY: a type of psychotherapy that focuses on correcting the faulty interactions among family members that maintain children's psychological problems

INTERNALIZING DISORDERS: children's psychiatric disorders that are likely to cause greater internal distress to the children affected than to others

INTERPRETATION: therapists' comments regarding some aspect of children's behavior designed to promote insight into the causes of their psychological disorders

LEARNING THEORY: principles derived from extensive experimentation that explain the production and modification of behavior

PLAY THERAPY: a system of individual psychotherapy in which children's play is utilized to explain and reduce symptoms of their psychological disorders

WORKING THROUGH: a psychoanalytical term that describes the process by which children develop more adaptive behavior once they have gained insight into the causes of their psychological disorders

Overview

Various psychological techniques designed to treat children's behavioral, cognitive, or emotional problems are used in psychotherapy with children. The number of children with psychological disorders underscores the need for effective child psychotherapy: It is estimated that between 7 and 14 million, or between 5 and 15 percent, of America's children suffer from psychological disorders. It is believed that only one-fourth to one-third of all children who have psychological problems receive psychotherapeutic services.

Children, like adults, may experience many different kinds of psychological disorders. For example, in the *Diagnostic and Statistical Manual of Mental Disorders* (rev. 3d ed., 1987, DSM-III-R), published by the American Psychiatric Association, forty-seven separate disorders were listed which primarily affect children. This number does not include many disorders, such as major depressive

disorder, which primarily affect adults but may also affect children. In general terms, children's disorders can be divided into two major categories: externalizing and internalizing disorders.

Externalizing disorders are those in which children engage in activities that are physically disruptive or are harmful to themselves or others. An example of this type of disorder is conduct disorder. Conduct disorder is characterized by children's involvement in a continued pattern of behavior that demonstrates a fundamental disregard for the safety or property of others. In contrast to externalizing disorders, internalizing disorders create greater emotional distress for the children themselves than for others around them. An example of an internalizing disorder is overanxious disorder. In overanxious disorder, the child experiences persistent, unrealistic anxiety regarding numerous situations and events such as being liked or school grades.

In response to the prevalence and variety of childhood disorders, many different treatments have been developed to address children's psychological problems. Historically, the earliest interventions for addressing these problems were based on psychoanalytic theory, developed by Sigmund Freud. Psychoanalysis is a type of psychotherapy based on the idea that individuals' unconscious processes, derived from early childhood experiences, are responsible for the psychological problems they experience as adults. One of the first therapists to adapt Freud's psychoanalysis to the treatment of children was Anna Freud, his daughter.

Psychoanalysis had to be modified for the treatment of children because of its heavy reliance on individuals' verbalizing their unconscious thoughts and feelings. Anna Freud realized that children would not be able to verbalize regarding their experiences to the extent necessary for effective treatment. Therefore, beginning in the 1920's, she created play therapy, a system of psychotherapy in which children's responses during play provided information regarding their hidden thoughts and feelings. Although play therapy had its roots in Sigmund Freud's psychoanalysis, this type of therapy came to be associated with other systems of psychotherapy. For example, Virginia Axline demonstrates her version of play therapy in the 1964 book *Dibs: In Search of Self*; her approach is based on Carl Rogers's person-centered therapy.

Also in the 1920's, Mary Cover Jones was applying the principles of behavior therapy developed by John B. Watson and others to the treatment of children's fears. Behavior therapy rests on the notion that all behavior, whether adaptive or maladaptive, is learned and thus can be unlearned. Jones's treatment involved reconditioning, a procedure in which the object of which the child is afraid is gradually associated with a pleasurable activity. By regularly associating the feared object with a pleasurable activity, Jones was able to eliminate children's fears.

Although early child analysts and behaviorally oriented psychologists attributed many children's problems to difficulties within their family environments, these treatment providers' primary focus was on treating the children, not their parents. In the early 1940's, however, Nathan Ackerman, a psychiatrist trained in the psychoanalytic tradition, began to treat children in conjunction with their families. His justification for seeing all family members in treatment was that families, like

individuals, possess hidden conflicts that prevent them from engaging in healthy psychological functioning. Therefore, the role of the family therapist was to uncover these family conflicts, thus creating the possibility that the conflicts could be addressed in more adaptive ways. Once these family conflicts were properly handled, the causes of the child's psychological problems were removed. Ackerman's approach marked the beginning of the use of family therapy for the treatment of children's problems.

Another historical movement within child psychotherapy is behavioral parent training (BPT). BPT evolved from the recognition that parents are important in shaping their children's behavior and that they can be trained to eliminate many of their children's problems. Beginning in the late 1960's, researchers such as Gerald Patterson and Rex Forehand began to develop programs designed to target parents as the principal persons responsible for change in their children's maladaptive behavior. In this system of psychotherapy, parents were taught ways to assess and to intervene in order to correct their children's misbehavior. The role of the child was de-emphasized to the point that the child might not even be seen by the therapist during the treatment process.

It is estimated that more than two hundred different types of child psychotherapy exist; however, these specific types of therapy can be roughly divided into three larger categories of treatment based on the primary focus of their interventions. These three categories are children only, parents only, or children and parents combined.

Applications

Individual child psychotherapy, the first category of psychotherapy with children, focuses on the child alone because of the belief that the greatest amount of improvement can result when the child is given primary attention in treatment. An example of individual child treatment is psychodynamic play therapy. Originating from the work of Anna Freud, the basic goal of psychodynamic play therapy is to provide the child with insight into the internal conflicts that have caused his or her psychological disorder. Once the child has gained sufficient insight, he or she is guided in handling these conflicts in more adaptive ways. Play therapy can be divided into three basic phases: initial, interpretative, and working-through phases.

In the initial phase of play therapy, the major goal is to establish a cooperative relationship between the child and the therapist. The attainment of this goal may require considerable time for several potential reasons. These reasons include a child's unwillingness to participate in therapy, lack of understanding regarding the therapy process, and lack of a previous trusting relationship with an adult. The participation in play activities provides an opportunity for the therapist to interact with the child in a relaxed and interesting manner. The specific kinds of play utilized differ from therapist to therapist but may include competitive games (such as checkers), imaginative games involving different figures (hand puppets, for example), or cooperative games (playing catch).

Once a sufficient level of cooperation is established, the therapist can begin to make interpretations to the child regarding the play. These interpretations consist

of the therapist identifying themes in the content or style of a child's play that may relate to a psychological problem. For example, in playing with hand puppets, a child referred because of aggressive behavior may regularly enact stories in which a larger puppet "beats up" a smaller puppet. The child's therapist may interpret this story as meaning that the child aggresses against others because he or she feels inadequate.

Once the child gains insight into the internal conflict that has caused his or her problematic behavior, the child is guided by the therapist to develop a more adaptive way of handling this conflict. This final process of therapy is called working through. The working-through phase may be the most difficult part of treatment, because it involves the child abandoning a repetitive and maladaptive manner of handling a conflict in favor of a new approach. In comparison to most other psychotherapies, this treatment process is lengthy, ranging from months to years.

The second category of child psychotherapy, parent training, focuses intervention on the parents, because they are viewed as potentially the most effective persons available to alleviate the child's problems. This assumption is based on several factors, including the great amount of time parents spend with their children, the parents' control over the child's access to desired reinforcers, and the parents' understanding of the child's behavior because of their past relationship with the child. Behavioral parent training (BPT) is the most common type of parent training program. In BPT, parents are taught ways to modify their children's environment in order to improve their behavior.

The initial phase of this treatment process involves instructing parents in the basics of learning theory. They are taught that all behavior, adaptive or maladaptive, is maintained because it is reinforced. The application of learning theory to the correction of children's misbehavior involves three principles. First, positive reinforcement should be withdrawn from children's maladaptive behavior. For example, a parent who meets the demands of his screaming preschooler, who throws a temper tantrum in the checkout line of the grocery store because she wants a piece of candy, is unwittingly reinforcing the child's screaming behavior. Second, appropriate behavior that is incompatible with the maladaptive behavior should be positively reinforced. In the case of the screaming preschooler, this would involve rewarding her for acting correctly. Third, aversive consequences should be applied when the problem behavior recurs. That is, when the child engages in the misbehavior, he or she should consistently experience negative costs. For example, the preschooler who has a temper tantrum in the checkout line should not be allowed money to purchase gum, which she had previously selected as a potential reward for good store behavior, as the cost for her tantrum. In order to produce the greatest effect, positive reinforcement and negative consequences should be administered as close as possible to the occurrence of the appropriate or inappropriate behavior.

The final category of child psychotherapy, family therapy, focuses intervention on both the child and the child's family. Family therapy rests on the assumption that the child's psychological problems were created and are maintained by interactions among different family members. In this model, attention is shifted

away from the individual child's problems toward the functioning of the entire family. For example, in structural family therapy, a widely practiced type of family therapy, the boundaries between different family members are closely examined. Family boundaries represent the degree of separation between different family members or subsets of members (for example, the parent-versus-child subset). According to Salvador Minuchin, the originator of structural family therapy, families in which there is little separation between parents and children may cause certain children to misbehave as a way to gain increased emotional distance from their parents. On the other hand, families characterized by too much separation between parents and children may cause certain children to become depressed because of the lack of a confiding relationship with a parental figure. Regardless of the child's specific disorder, all family members, not the child or parents alone, are the focus of treatment.

Perspective and Prospects

The two large questions that can be asked regarding psychotherapy for children are whether it is effective and whether one type of treatment is more effective than others. The answer to the first question is very clear; psychotherapy is effective in treating the majority of children's psychological disorders. Two major studies in the 1980's reviewed the existing research examining the effects of child psychotherapy. The first of these studies was conducted by Rita Casey and Jeffrey Berman (1985), and the second was conducted by John Weisz, Bahr Weiss, Mark Alicke, and M. L. Klotz (1987). Both these studies found that children who received psychotherapy were better off than approximately 75 percent of the children who did not receive psychotherapy. Interestingly, Weisz and colleagues found that younger children (ages four to twelve) appeared to obtain more benefit from psychotherapy than older children (ages thirteen to eighteen). In addition, Casey and Berman found that girls tend to receive more benefit from psychotherapy than boys.

As one might expect, some controversy exists in attempting to answer the second question, regarding which treatment is the most effective. Casey and Berman concluded that all treatments were equally effective; however, Weisz et al. found that behavioral treatments were more effective than nonbehavioral treatments. Disagreement regarding which type of psychotherapy is most effective should not be allowed to obscure the general conclusion that psychotherapy for children is clearly beneficial. Many investigators would suggest that the common characteristics shared by all types of child psychotherapy are responsible for the relatively equivalent improvement produced by different treatments. For example, one of these common characteristics may be the therapist's and child's expectations that therapy will result in a reduction in the child's psychological problems. In spite of the treatments' apparent differences in rationale and method, it may be that this component, as well as other common elements, accounts for much of the similarity in treatment outcomes.

The number of psychotherapeutic approaches available to treat children's psychological disorders has exploded since their introduction in the 1920's. Recent

research has clearly demonstrated the effectiveness of psychotherapy for children. Controversy still remains, however, regarding which treatment approach is the most effective; continued research is needed to address this issue. Of greater urgency is the need to provide psychotherapy to the approximately 5 to 10 million children with psychological disorders who are not being served. Perhaps even more cost effective, in terms of both alleviating human suffering and reducing costs, would be the development of programs to prevent children's psychological disorders.

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R. Christopher Qualls

See also:

Abnormality: Behavioral Models; Abnormality: Family Models; Abnormality: Psychodynamic Models; Behavioral Family Therapy; Child and Adolescent Psychiatry; Operant Conditioning Therapies; Play Therapy; Psychotherapy: Effectiveness; Psychotherapy: Goals and Techniques; Strategic Family Therapy.

PSYCHOTHERAPY
Effectiveness

Type of psychology: Psychotherapy
Fields of study: Evaluating psychotherapy

Psychotherapy is a rapidly expanding field; it has been estimated that there are more than four hundred psychotherapeutic approaches. Research evaluating the effectiveness of psychotherapy serves a primary role in the development and validation of therapeutic approaches. Studies have examined the effectiveness of psychotherapy on thousands of patients. Although such studies often produce contradictory and perhaps even disappointing findings, there is clear evidence that psychotherapy is effective.

Principal terms

CASE STUDY: an unsystematic report of treatment which is typically based on a therapist's opinions about the results

EMPATHY: the ability to convey an understanding of the client's emotional experiences

META-ANALYSIS: a set of quantitative (statistical) procedures used to evaluate a body of empirical literature

PLACEBO: a procedure designed to be inert or inactive; used frequently in research designs as a method of controlling certain variables

RANDOMIZATION: a procedure in which patients or treatments are selected without regard for particular variables; for example, flipping a coin to decide who goes first

RELAPSE: reexperiencing an earlier problem or returning to a previous level of functioning

SPONTANEOUS REMISSION: recovery from an illness; improvement without treatment

Overview

Although the roots of psychotherapy can be traced back to ancient times, the birth of modern psychotherapy is frequently targeted with the famous case of "Anna O." in 1882. Physician Josef Breuer, who was a colleague of Sigmund Freud, described Anna O. as a twenty-one-year-old patient with multiple symptoms including paralysis and loss of sensitivity in her limbs, lapses in awareness, problems in vision and speech, headaches, and dual personality. During treatment, Breuer found that if Anna discussed every occurrence of a symptom until she described its origin and vividly recalled its first appearance, the symptom would disappear. Hypnosis was also employed to help Anna O. eliminate the symptoms more rapidly. (Eventually, Breuer stopped working with this patient because of numerous difficulties, including his jealous wife and his patient's tendency to become

hysterical.) Anna O., whose real name was Bertha Pappenheim, later became well known throughout Germany for her work with children, prostitutes, and Jewish relief organizations.

The case of Anna O. is not only important as perhaps representing the birth of modern psychotherapy but also characteristic of a method of investigation referred to as the case study or case report. A case report attempts to highlight descriptions of a specific patient and treatment approach, typically as reported by the therapist. Given the fact that most patients treated in psychotherapy are seen individually by a single therapist, it is not surprising that some of the most influential literature in the history of psychotherapy is based on case reports. Unfortunately, the vast majority of case reports are inherently problematic in terms of scientific merit and methodological rigor. Moreover, it is very difficult to determine which factors are most effective in the treatment of any particular patient. Thus, whereas case reports are common in the history of psychotherapy research, their value is generally limited.

The earliest psychotherapy outcome studies were conducted from the 1930's to the 1960's. These initial investigations were concerned with one primary question: "Does psychotherapy demonstrate positive effects?" Unfortunately, the research methodology employed in these studies was typically flawed, and interpretations proved ambiguous. The most common area of disagreement in the early investigations was the concept of "spontaneous remission." That is, psychotherapy was evaluated in comparison to the rates of improvement seen among patients who were not currently receiving treatment.

For example, British psychologist Hans Eysenck created a furor in the early 1950's, one which continued to trouble psychologists and mental health workers for several decades. Eysenck concluded, on the basis of his review of twenty-four studies, that psychotherapy produced no greater changes in individuals than did naturally occurring life events. Specifically, he argued that two-thirds of people with neurotic disorders improve over a two-year period with or without psychotherapy. Two particular problems with his review warrant comment, however; first, the studies that were included in his review rarely employed randomization, which raises significant concerns about subsequent interpretations. Second, later analyses of the same data set demonstrated that Eysenck's original estimates of improvements in the absence of treatment were inflated.

The manner in which research investigations were conducted (the research methodology) became more sophisticated in the 1970's. In particular, research designs included appropriate control groups to account for spontaneous improvements, randomly assigned experimental conditions, well-specified treatment protocols administered by well-trained therapists, and improved instruments and procedures to measure effectiveness. As a result, it became increasingly clear that many psychotherapies demonstrate statistically significant and clinically meaningful effects on patients. Not all patients reveal improvement, however, and many patients relapse following successful treatment.

In 1977, researchers Mary Smith and Gene Glass presented a review of 375 psychotherapy outcome studies via a newly devised methodology called "meta-

analysis." Meta-analysis literally means "analysis of analyses" and represents a statistical procedure used to summarize collections of research data. Meta-analysis is frequently regarded as more objective and more sophisticated than traditional review procedures such as those employed by Eysenck. Smith and Glass revealed that most patients who entered outpatient psychotherapy showed noticeable improvement. In addition, the average therapy patient improved more than did 75 percent of comparable control patients.

The results reported by Smith and Glass were controversial, and they stimulated much productive debate. In particular, the authors were criticized for certain procedural steps (for example, excluding particular studies and including others). In response to such criticism, many researchers conducted additional meta-analytic investigations to examine the empirical effectiveness of psychotherapy. Of particular importance is the large follow-up investigation that was conducted by Smith, Glass, and Thomas Miller in 1980. The authors presented many detailed analyses of their results and expanded the data set from 375 studies to 475 studies involving approximately twenty-five thousand patients treated by seventy-eight therapies over an average of sixteen sessions. Smith, Glass, and Miller revealed that the average therapy patient was better off than 80 percent of the control group.

To date, numerous studies have provided evidence for the general effectiveness of psychotherapy to produce positive changes in targeted problem areas; however, psychotherapy is not a unitary procedure applied to a unitary problem. Moreover, many of the nearly four hundred psychotherapeutic approaches have yet to be systematically evaluated. Thus, it is important to understand the empirical evidence for specific treatment approaches with specific patient populations. It is similarly important to note that each therapist is a unique individual who provides his or her own unique perspective and experience to the psychotherapeutic process. Fortunately, positive effects are generally common among psychotherapy patients, and negative (deterioration) effects, which are also observed regularly, often appear related to a poor match of therapist, technique, and patient factors.

Applications

Recent research has focused on some of the factors associated with patient improvement, and several specific methods have been used to evaluate different treatments. Common research designs include contrasting an established treatment with a new treatment approach (for example, systematic desensitization versus eye-movement desensitization for anxiety) or therapeutic format (group depression treatment versus individual depression treatment), separating the components of an effective treatment package (such as cognitive behavioral treatment of anxiety) to examine the relative effectiveness of the modules, and analyzing the interactions between therapist and patient during psychotherapy (process research).

The results from studies employing these designs are generally mixed and reveal limited differences between specific therapeutic approaches. For example, in the largest meta-analytic studies, some analyses revealed that behavioral and cognitive therapies were found to have larger positive changes when compared to other types

of psychotherapy (psychodynamic and humanistic), while other analyses did not. Similarly, several large comparative studies revealed considerable patient improvement regardless of treatment approach. Such results must be carefully evaluated, however, because there are numerous reasons for failing to find differences between treatments.

All psychotherapy research is flawed; there are no "perfect studies." Thus, studies should be evaluated along several dimensions, including rigor of methodology and adequacy of statistical procedures. Psychotherapy is both an art and a science, and it involves the complex interaction between a socially sanctioned helper (a therapist) and a distressed patient or client. The complexity of this interaction raises some significant obstacles to designing psychotherapy research. Thus, methodological problems can be diverse and extensive, and they may account for the failure to find significant differences between alternative psychotherapeutic approaches. Moreover, some researchers have argued that the combination of methodological problems and statistical limitations (such as research samples that are too small to detect differences between groups or inconsistency with regard to patient characteristics) plagued many of the comparative studies completed in the 1980's.

Still, the search for effective components of psychotherapy remains a primary research question focused on several key areas, including patient characteristics, therapist characteristics, treatment techniques, common factors across different psychotherapies, and the various interactions among these variables. As highlighted in Sol Garfield and Allen Bergin's edited book entitled *Handbook of Psychotherapy and Behavior Change* (1986), some evidence reveals that patient characteristics (such as amount of self-exploration and ability to solve problems and express emotions constructively) are of primary importance in positive outcomes. Therapist characteristics such as empathy, interpersonal warmth, acceptance toward patients, and genuineness also appear to play a major role in successful therapy. Treatment techniques seem generally less important than the ability of the therapist and patient to form a therapeutic relationship.

Additional studies have asked patients at the conclusion of psychotherapy to identify the most important factors in their successful treatment. Patients have generally described such factors as gradually facing their problems in a supportive setting, talking to an understanding person, and the personality of their therapist as helpful factors. Moreover, patients frequently conclude that their success in treatment is related to their therapist's support, encouragement, sensitivity, honesty, sense of humor, and ability to share insights. In contrast, other research has examined negative outcomes of psychotherapy in order to illuminate factors predictive of poor outcomes. These factors include the failure of the therapist to structure sessions and address primary concerns presented by the patient, poorly timed interventions, and negative therapist attitudes toward the patient.

Taken as a whole, psychotherapy research reveals some consistent results about many patient and therapist characteristics associated with positive and negative outcomes. Yet remarkably few differences have been found among the different types of treatment. This pattern of evidence has led many researchers to conclude

that factors which are common across different forms of psychotherapy may account for the apparent equality among many treatment approaches. At the forefront of this position is psychiatrist and psychologist Jerome D. Frank.

In various books and journal articles, Frank has argued that all psychotherapeutic approaches share common ingredients that are simply variations of age-old procedures of psychological healing such as confession, encouragement, modeling, positive reinforcement, and punishment. Because patients seeking treatment are typically demoralized, distressed, and feeling helpless, all psychotherapies aim to restore morale by offering support, reassurance, feedback, guidance, hope, and mutual understanding of the problems and proposed solutions. Among the common factors most frequently studied since the 1960's, the key ingredients outlined by the client-centered school are most widely regarded as central to the development of a successful therapeutic relationship. These ingredients are empathy, positive regard, warmth, and genuineness.

Various factors should be considered when one chooses a therapist. To begin with, it may be wise to consider first one's objectives and motivations for entering treatment. A thoughtful appraisal of one's own goals can serve as a map through the maze of alternative treatments, therapy agencies, and diverse professionals providing psychotherapeutic services. In addition, one should learn about the professionals in one's area by speaking with a family physician, a religious adviser, or friends who have previously sought psychotherapeutic services. It is also important to locate a licensed professional with whom one feels comfortable, because the primary ingredients for success are patient and therapist characteristics. All therapists and patients are unique individuals who provide their own distinctive perspectives and contributions to the therapy process. Therefore, the most important factor in psychotherapeutic outcome may be the match between patient and therapist.

Perspective and Prospects

Although the roots of psychotherapy can be traced back to antiquity, psychotherapy research is a recent development in the field of psychology. Early evidence for the effectiveness of psychotherapy was limited and consisted of case studies and investigations with significant methodological flaws. Considerable furor among therapists followed psychologist Hans Eysenck's claims that psychotherapy is no more effective than naturally occurring life events are. Other disagreements followed the rapid development of many alternative and competing forms of psychotherapy in the 1960's and 1970's. Claims that one particular approach was better than another were rarely confirmed by empirical research. Still, psychotherapy research is a primary method in the development, refinement, and validation of treatments for diverse patient groups. Advancements in research methodology and statistical applications have provided answers to many important questions in psychotherapy research.

Rather than examining the question of whether psychotherapy works, researchers are designing sophisticated research programs to evaluate the effectiveness of specific treatment components on particular groups of patients with care-

fully diagnosed mental disorders. Researchers continue to identify specific variables and processes among patients and therapists that shape positive outcomes. The quality of interactions between patient and therapist appear to hold particular promise in understanding psychotherapy outcome.

To address the complexity of psychotherapy, research must aim to address at least two important dimensions: process ("how and why does this form of therapy work?") and outcome ("to what degree is this specific treatment effective for this particular client in this setting at this time?"). In addition, empirical comparisons between psychotherapy and medications in terms of effectiveness, side effects, compliance, and long-term outcome will continue to shape clinical practice for many years to come. As one example, the National Institutes of Mental Health (NIMH) sponsored a large comparative psychotherapy and drug treatment study of depression. In that investigation, the effectiveness of individual interpersonal psychotherapy, individual cognitive therapy, antidepressant medication, and placebo conditions were tested. While findings from initial analyses revealed no significant differences between any of the treatment conditions, secondary analyses suggested that severity of depression was an important variable. For the less severely depressed, there was no evidence for the specific effectiveness of active-versus-placebo treatment conditions. The more severely depressed patients, however, responded best to antidepressant medications and interpersonal therapy. Future reports from the NIMH team of researchers may reveal additional results which could further shape the ways in which depressed patients are treated.

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Gregory L. Wilson

See also:

Behavioral Family Therapy; Cognitive Behavior Therapy; Cognitive Therapy; Gestalt Therapy; Group Therapy; Psychotherapy: Children; Psychotherapy: Goals and Techniques; Psychotherapy: Historical Approaches to Treatment.

PSYCHOTHERAPY
Goals and Techniques

Type of psychology: Psychotherapy
Fields of study: Evaluating psychotherapy

The goals to be reached in the meetings between a psychotherapist and a client, or patient, and the techniques employed to accomplish them vary according to the needs of the client and the theoretical orientation of the therapist.

Principal terms

BEHAVIORAL THERAPY: an approach emphasizing how behaviors are controlled by stimuli that precede or follow them

DESENSITIZATION: a behavioral technique of gradually removing anxiety associated with certain situations by associating a relaxed state with these situations

HUMANISTIC THERAPY: an approach that emphasizes the innate capacity of people for positive change and ways of relating that encourage this change

INTERPRETATION: a psychodynamic technique in which the psychotherapist points out to a client patterns in behavior or the origin of these patterns

PSYCHODYNAMIC THERAPY: an approach emphasizing the influences of different parts of the mind on one another and the origins of these influences in childhood experience

RESISTANCE: the tendency of clients to avoid revealing themselves or attempting to change

SHAPING: a behavioral technique in which the psychotherapist rewards, usually through praise and attention, a client's gradual changes toward meeting psychotherapeutic goals

Overview

Psychotherapy is an interpersonal relationship in which clients present themselves to a psychotherapist in order to gain some relief from distress in their lives. It should be noted that although people who seek psychological help are referred to as "clients" by a wide range of psychotherapists, this term is used interchangeably with the term "patients," which is traditionally used more often by psychodynamically and medically trained practitioners. In all forms of psychotherapy, patients or clients must tell the psychotherapist about their distress and reveal intimate information in order for the psychotherapist to be helpful. The psychotherapist must aid clients in the difficult task of admitting difficulties and revealing themselves, since a client's desire to be liked and to be seen as competent can stand in the way of this work. The client also wants to find relief from distress at the least possible cost in terms of the effort and personal changes to be made, and, therefore, clients often prevent themselves from making the very changes in which they are interested.

This is termed resistance, and much of the work of the psychotherapist involves dealing with such resistance.

The goals of the client are determined by the type of life problems that are being experienced. Traditionally, psychotherapists make a diagnosis of the psychiatric disorder from which the client suffers, with different disorders presenting certain symptoms to be removed in order for the client to gain relief. The vast majority of clients suffer from some form of anxiety or depression, or from certain failures in personality development, which produce deviant behaviors and rigid patterns of relating to others called personality disorders. Relatively few clients suffer from severe disorders, called psychoses, which are characterized by some degree of loss of contact with reality. Depending on the particular symptoms involved in the client's disorder, psychotherapeutic goals will be set, although the client may not be aware of the necessity of these changes at first. In addition, the diagnosis allows the psychotherapist to anticipate the kinds of goals that would be difficult for the client to attain. Psychotherapists also consider the length of time they will likely work with the client. Therefore, psychotherapeutic goals depend on the client's wishes, the type of psychiatric disorder from which the client suffers, and the limitations of time under which the psychotherapy proceeds.

Another factor that plays a major role in determining psychotherapeutic goals is the psychotherapist's theoretical model for treatment. This model is based on a personality theory that explains people's motivations, how people develop psychologically, and how people differ from one another. It suggests what occurred in life to create the person's problems and what must be achieved to correct these problems. Associated with each theory is a group of techniques that can be applied to accomplish the goals considered to be crucial within the theory utilized. There are three main models of personality and treatment: psychodynamic therapies, behavioral therapies, and humanistic therapies. Psychodynamic therapists seek to make clients aware of motives for their actions of which they were previously unconscious or unaware. By becoming aware of their motives, clients can better control the balance between desires for pleasure and the need to obey one's conscience. Behavioral therapists attempt to increase the frequency of certain behaviors and decrease the frequency of others by reducing anxiety associated with certain behavior, teaching new behavior, and rewarding and punishing certain behaviors. Humanistic therapists try to free clients to use their innate abilities by developing relationships with clients in which clients can be assured of acceptance, making the clients more accepting of themselves and more confident in making decisions and expressing themselves.

Most psychotherapists use a combination of theories, and therefore of goals and techniques, in their practice. These "eclectic" therapists base their decisions about goals and techniques upon the combined theory they have evolved or upon a choice among other theories given what applies best to a client or diagnosis. It also appears that this eclectic approach has become popular because virtually all psychotherapy cases demand attention to certain common goals associated with the various stages of treatment, and different types of therapy are well suited to certain goals and related techniques at particular stages.

Applications

When clients first come to a psychotherapist, they have in mind some things about their lives that need to be changed. The psychotherapist recognizes that before this can be accomplished, a trusting relationship must be established with clients. This has been termed the "therapeutic alliance" or a "collaborative relationship." Establishing this relationship becomes the first goal of therapy. Clients must learn that the therapist understands them and can be trusted with the secrets of their lives. They must also learn about the limits of the therapeutic relationship: that the psychotherapist is to be paid for the service, that the relationship will focus on the clients' concerns and life experiences rather than the psychotherapist's, that the psychotherapist is available to clients during the scheduled sessions and emergencies only, and that this relationship will end when the psychotherapeutic goals are met.

The therapist looks early for certain recurring patterns in what the client thinks, feels, and does. These patterns may occur in the therapy sessions, and the client reports about the way these patterns have occurred in the past and how they continue. These patterns become the focal theme for the therapy and are seen as a basic reason for the client's troubles. For example, some clients may complain that they have never had the confidence to think for themselves. They report that their parents always told them what to do without explanation. In their current marriage, they find themselves unable to feel comfortable with any decisions, and they always look to their spouse for the final say. This pattern of dependence may not be as clear to the clients as to psychotherapists, who look specifically for similarities across past and present relationships. Furthermore, clients will probably approach the psychotherapist in a similar fashion. For example, clients might ask for the psychotherapist's advice, stating that they do not know what to do. When the psychotherapist points out the pattern in the clients' behavior, or suggests that it may have developed from the way their parents interacted with them, the psychotherapist is using the technique of interpretation. This technique originated in the psychodynamic models of psychotherapy.

When clients are confronted with having such patterns or focal themes, they may protest that they are not doing this, find it difficult to do anything different, or cannot imagine that there may be a different way of living. These tendencies to protest and to find change to be difficult are called "resistance." Much of the work of psychotherapy involves overcoming this resistance and achieving the understanding of self called "insight."

One of the techniques the psychotherapist uses to deal with resistance is the continued development of the therapeutic relationship in order to demonstrate that the psychotherapist understands and accepts the client's point of view and that these interpretations of patterns of living are done in the interest of the achievement of therapeutic goals by the client. Humanistic psychotherapists have emphasized this aspect of psychotherapeutic technique. The psychotherapist also responds differently to the client from the way others have in the past, so that when the client demonstrates the focal theme in the psychotherapy session, this different outcome to the pattern encourages a new approach to the difficulty. This is called the

"corrective emotional experience," a psychotherapeutic technique that originated in psychodynamic psychotherapy and is emphasized in humanistic therapies as well. For example, when the client asks the psychotherapist for advice, the psychotherapist might respond that they could work together on a solution, building on valuable information and ideas that both may have. In this way, the psychotherapist has avoided keeping the client dependent in the relationship with the psychotherapist as the client has been in relationships with parents, a spouse, or others. This is experienced by the client emotionally, in that it may produce an increase in self-confidence or trust rather than resentment, since the psychotherapist did not dominate. With the repetition of these responses by the psychotherapist, the client's ways of relating are corrected. Such a repetition is often called "working through," another term originating in psychodynamic models of therapy.

Psychotherapists have recognized that many clients have difficulty with changing their patterns of living because of anxiety or lack of skill and experience in behaving differently. Behavioral therapy techniques are especially useful in such cases. In cases of anxiety, the client can be taught to relax through "relaxation training" exercises. The client gradually imagines performing new, difficult behaviors while relaxing. Eventually, the client learns to stay relaxed while performing these behaviors with the psychotherapist and other people. This process is called "desensitization," and it was originally developed to treat persons with extreme fears of particular objects or situations, termed phobias. New behavior is sometimes taught through modeling techniques in which examples of the behavior are first demonstrated by others. Behavioral psychotherapists have also shown the importance of rewarding small approximations to the new behavior that is the goal. This shaping technique might be used with the dependent client by praising confident, assertive, or independent behavior reported by the client or shown in the psychotherapy session, no matter how minor it may be initially.

Perspective and Prospects

The goals and techniques of psychotherapy were first discussed by the psychodynamic theorists who originated the modern practice of psychotherapy. Sigmund Freud and Josef Breuer are generally credited with describing the first modern case treated with psychotherapy, and Freud went on to develop the basis for psychodynamic psychotherapy in his writings between 1895 and his death in 1939. Freud sat behind his clients while they lay upon a couch so that they could concentrate on saying anything that came to mind in order to reveal themselves to the psychotherapist. This also prevented the clients from seeing the psychotherapist's reaction, in case they expected the psychotherapist to react to them as their parents had reacted. This transference relationship provided Freud with information about the client's relationship with parents, which Freud considered to be the root of the problems that his clients had. Later psychodynamic psychotherapists sat facing their clients and conversing with them in a more conventional fashion, but they still attended to the transference.

Carl Rogers is usually described as the first humanistic psychotherapist, and he published descriptions of his techniques in 1942 and 1951. Rogers concentrated on

establishing a warm, accepting, honest relationship with his clients. Rogers established this relationship by attempting to understand the client from the client's point of view. By communicating this "accurate empathy," clients would feel accepted and therefore would accept themselves and be more confident in living according to their wishes without fear.

Behavioral psychotherapists began to play a major role in this field after Joseph Wolpe developed systematic desensitization in the 1950's. In the 1960's and 1970's, Albert Bandura applied his findings on how children learn to be aggressive through observation to the development of modeling techniques for reducing fears and teaching new behaviors. Bandura focused on how people attend to, remember, and decide to perform behavior they observe in others. These thought processes, or "cognitions," came to be addressed in cognitive psychotherapy by Aaron T. Beck and others in the 1970's and 1980's. Cognitive behavioral therapy became a popular hybrid that included emphasis on how thinking and behavior influence each other.

In surveys of practicing psychotherapists beginning in the late 1970's, Sol Garfield showed that the majority of therapists practice some hybrid therapy or eclectic approach. As it became apparent that no one model produced the desired effects in a variety of clients, psychotherapists utilized techniques from various approaches. An example is Arnold Lazarus's multimodal behavior therapy, introduced in 1971. It appears that such trends will continue and that, in addition to combining existing psychotherapeutic techniques, new eclectic models will produce additional ways of understanding psychotherapy as well as different techniques for practice.

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Richard G. Tedeschi

See also:

Aversion, Implosion, and Systematic Desensitization Therapies; Behavioral Family Therapy; Cognitive Behavior Therapy; Cognitive Therapy; Group Therapy; Music, Dance, and Theater Therapy; Psychoactive Drug Therapy; Psychoanalysis; Psychotherapy: Children; Psychotherapy: Effectiveness; Psychotherapy: Historical Approaches to Treatment.

PSYCHOTHERAPY
Historical Approaches to Treatment

Type of psychology: Psychotherapy
Fields of study: Classic analytic themes and issues; psychodynamic and neoanalytic models

Psychotherapy as a socially recognized process and profession emerged in Europe during the late nineteenth century. Although discussions of psychological or "mental healing" can be found dating back to antiquity, a cultural role for the secular psychological healer has become established only in modern times.

Principal terms

CATHARSIS: the discharge of emotional tension, yielding relief from symptoms
FUNCTIONAL DISORDERS: signs and symptoms for which no organic or physiological basis can be found
MENTAL HEALING: the healing of a disorder, functional or physical, through suggestion or persuasion
MESMERISM: hypnotic states induced and explained by "animal magnetism"
NONSPECIFIC TREATMENT FACTORS: those factors that can be attributed to the relationship between the patient and therapist and to suggestion and placebo effects
SUGGESTION: the induction of actions or beliefs in a person through subtle means
TRANSFERENCE: the transferring of emotions from childhood onto adult figures in one's life, including a psychotherapist

Overview

The term "psychotherapy" (originally "psycho-therapy") came into use during the late nineteenth century to describe various treatments that were believed to act on the psychic or mental aspects of a patient rather than on physical conditions. It was contrasted with physical therapies such as medications, baths, surgery, diets, rest, or mild electrical currents, which, while producing some mental relief, did so through physical means. The origins of psychotherapy have been variously traced. Some authors call attention to the practices of primitive witch doctors, to the exorcism rites of the Catholic Church, to the rhetorical methods of Greco-Roman speakers, to the naturalistic healing practices of Hippocrates, and to the Christian practice of public (and later, private) confession.

One of the best argued and supported views claims a direct line of development from the practice of casting out demons all the way to psychoanalysis, the most widely recognized form of psychotherapy. The casting out of demons may be seen as leading to exorcism, which in turn led to the eighteenth century mesmeric technique (named for Franz Mesmer) based on the alleged phenomenon of "animal magnetism." This led to the practice of hypnosis as a psychological rather than a

physiological phenomenon and finally to the work of Sigmund Freud, a late-nineteenth century Viennese neurologist who, in his treatment of functional disorders, slowly moved from the practice of hypnosis to the development of psychoanalysis.

There are two histories to be sought in the early forms of treatment by psychotherapy: One is an account of the relationship between a patient and a psychological healer; the other is the story of the specific techniques that the healer employs and the reasons that he or she gives to rationalize them. The latter began as religious or spiritual techniques and became naturalized as psychological or physiological methods. The prominence of spiritual revival during the mid- to late nineteenth century in the United States led to the rise of spiritual or mental healing movements, as demonstrated by the Christian Science movement. Religious healing, mental healing, and psychotherapy were often intertwined in the 1890's, especially in Boston, where many of the leading spokespersons for each perspective resided.

The distinction among these viewpoints was the explanation of the cure—naturalistic versus spiritualistic—and to a lesser degree, the role or relationship between the practitioner and the patient. A psychotherapist in the United States or Europe, whether spiritualistic or naturalistic in orientation, was an authority (of whatever special techniques) who could offer the suffering patient relief through a relationship in which the patient shared his or her deepest feelings and most secret

Many people seek out a priest, rabbi, minister, or other spiritual adviser in response to depression, anxiety, and other types of psychological distress. (St. Elizabeths Hospital Museum)

thoughts on a regular basis. The relationship bore a resemblance to that which a priest, rabbi, or minister might have with a member of the congregation. The psychotherapeutic relationship was also a commercial one, however, since private payment for services was usually the case. Freud came to believe that transference, the projection of emotional reactions from childhood onto the therapist, was a critical aspect of the relationship.

Initially, and well into the early part of the twentieth century, psychotherapists treated patients with physical as well as functional (mental) disorders, but by the 1920's, psychotherapy had largely become a procedure addressed to mental or psychological problems. In the United States, its use rested almost exclusively with the medical profession. Psychiatrists would provide therapy, clinical psychologists would provide testing and assessment of the patient, and social workers would provide ancillary services related to the patient's family or societal and governmental programs. Following World War II, all three of these professions began to offer psychotherapy as one of their services.

One could chart the development of psychotherapy in a simplified, time-line approach, beginning with the early use of the term by Daniel H. Tuke in *Illustrations of the Influence of the Mind upon the Body in Health and Disease* in 1872, followed by the first use of the term at an international conference in 1889 and the publication of Sigmund Freud's and Josef Breuer's cathartic method in *Studien über Hysterie* (1895; *Studies in Hysteria*, 1950). Pierre Janet lectured on "The Chief Methods of Psychotherapeutics" in St. Louis in 1904, and psychotherapy was introduced as a heading in the index to medical literature (the *Index Medicus*) in 1906; at about the same time, private schools of psychotherapy began to be established. In 1909, Freud lectured on psychoanalysis at Clark University. That same year, Hugo Münsterberg published *Psychotherapy*. James T. Walsh published his *Psychotherapy* in 1912. During the 1920's, the widespread introduction and medicalization of psychoanalysis in the United States occurred. Client-centered therapy was introduced by Carl Rogers in 1942, and behavior-oriented therapy was developed by Joseph Wolpe and B. F. Skinner in the early 1950's.

Whatever form psychotherapy may take, it nearly always is applied to the least severe forms of maladjustment and abnormal behavior—to those behaviors and feelings that are least disturbing to others. When the patient has suffered a break with reality and experiences hallucinations, delusions, paranoia, or other behaviors that are socially disruptive, physical forms of treatment are often utilized. The earliest examples include "trephining," a Stone Age practice in which a circular hole was cut into the brain cavity, perhaps to allow the escape of evil spirits. The best-known of the Greek theories of abnormal behavior were naturalistic and physicalistic, based on the belief that deviations in levels of bile caused mental derangement. The solution was bleeding, a practice that continued until the early nineteenth century. Rest, special diets, exercise, and other undertakings that would increase or decrease the relevant bile level were also practiced.

Banishment from public places was recommended by Plato. Initially, people were restricted to their own homes. Later, religious sanctuaries took in the mentally ill, and finally private for-profit and public asylums were developed. Institutions

that specialized in the housing of the mentally ill began opening during the sixteenth century. Among the best-known institutions were Bethlehem in London, (which came to be known as "Bedlam"), Salpetriere in Paris, and later St. Elizabeth's in Washington, D.C. Beyond confinement, "treatments" at these institutions included "whirling" chairs in which the patient would be strapped; the "tranquilizing" chair for restraining difficult patients; the straitjacket, which constrained only the arms; rest and diet therapies; and hot and cold water treatments.

By the 1930's, electroconvulsive therapy ("shock therapy") was invented; it used an electric charge that induced a grand mal seizure. During the same period, the earliest lobotomy procedures were performed. These surgeries severed the connections between the brain's frontal lobes and lower centers of emotional functioning. What separates all these and other procedures from psychotherapy is the employment of physical and chemical means for changing behavior and emotions, rather than persuasion and social influence processes.

Periodic reforms were undertaken to improve the care of patients. Philippe Pinel, in the late eighteenth century, freed many mental patients in Paris from being chained in their rooms. He provided daily exercise and frequent cleaning of their quarters. In the United States, Dorothea Dix in the mid-1800's led a campaign of reform that resulted in vast improvement in state mental hospitals. In the 1960's and 1970's, some states placed restrictions on the use of electroconvulsive therapy and lobotomies, and the federal government funded many community mental health centers in an attempt to provide treatment that would keep the patient in his or her community. Since the 1950's, many effective medications have been developed for treating depressions, anxieties, compulsions, panic attacks, and a wide variety of other disorders.

Applications

Modern textbooks of psychotherapy may describe dozens of approaches and hundreds of specific psychotherapeutic techniques. What they have in common is the attempt of a person in the role of healer or teacher to assist another person in the role of patient or client with emotionally disturbing feelings, awkward behavior, or troubling thoughts. Many contemporary therapies are derivative of Sigmund Freud's psychoanalysis. When Freud opened his practice for the treatment of functional disorders in Vienna in the spring of 1886, he initially employed the physical therapies common to his day. These included hydrotherapy, electrotherapy, a mild form of electrical stimulation, massage, rest, and a limited set of pharmaceutical agents. He was disappointed with the results, however, and reported feeling helpless.

He turned to the newly emerging procedure of hypnosis that was being developed by French physicians. Soon he was merely urging his patients to recall traumatic episodes from childhood rather than expecting them to recall such memories under hypnosis. In what he called his "pressure technique," Freud would place his hand firmly on a patient's forehead, apply pressure, and say, "you will recall." Shortly, this became the famous method of free association, wherein the patient would recline on a couch with the instruction to say whatever came to mind.

The psychoanalytic situation that Freud invented, with its feature of one person speaking freely to a passive but attentive audience about the most private and intimate aspects of his or her life, was unique in the history of Western civilization.

Psychoanalysis was not the only method of psychotherapy to emerge near the end of the nineteenth century, as an examination of a textbook published shortly after the turn of the century reveals. James J. Walsh, then Dean and Professor of Functional Disorders at Fordham University, published his eight-hundred-page textbook on psychotherapy in 1912. Only two pages were devoted to the new practice of psychoanalysis. For Walsh, psychotherapy was the use of mental influence to treat disease. His formulation, and that of many practitioners of his time, would encompass what today would be termed behavioral medicine. Thus, the chapters in his book are devoted to the different bodily systems, the digestive tract, cardiotherapy, gynecological psychotherapy, and skin diseases, as well as to the functional disorders.

The techniques that Walsh describes are wide ranging. They include physical recommendations for rest and exercise, the value of hobbies as diversion, the need for regimentation, and varied baths, but it is the suggestion and treatment of the patient rather than the disease (that is, the establishment of a relationship with detailed knowledge of the patient's life and situation) that are the principal means for the cure and relief of symptoms. A concluding chapter in Walsh's book compares psychotherapy with religion, with the view that considering religion simply as a curative agent lessens its meaning and worth.

Perspective and Prospects

In the mid-twentieth century, two new psychotherapies appeared that significantly altered the field, although one of them rejected the term, preferring to call itself behavior therapy in order to distinguish its method from the merely verbal or "talk therapies." The first was found in the work of psychologist Carl Rogers. Rogers made three significant contributions to the development of psychotherapy. He originated nondirective or client-centered therapy, he phonographically recorded and transcribed therapy sessions, and he studied the process of therapy based upon the transcripts. The development of an alternative to psychoanalysis was perhaps his most significant contribution. In the United States, psychoanalysis had become a medical specialty, practiced only by psychiatrists with advanced training. Rogers, a psychologist, created a role for psychologists and social workers as therapists. Thus, he expanded the range of professionals who could legitimately undertake the treatment of disorders through psychotherapy. The title of his most important work, *Counseling and Psychotherapy: Newer Concepts in Practice* (1942), suggests how other professions were to be included. In the preface to his book, Rogers indicated that he regarded these terms as synonymous. If psychologists and social workers could not practice therapy, they could counsel.

Behavior therapy describes a set of specific procedures, such as systematic desensitization and contingency management, that began to appear in the early 1950's, based on the work of Joseph Wolpe, a South African psychiatrist, Hans J.

Eysenck, a British psychologist, and the American experimental psychologist and radical behaviorist B. F. Skinner. Wolpe's *Psychotherapy by Reciprocal Inhibition* appeared in 1958 and argued that states of relaxation and self-assertion would inhibit anxiety, since the patient could not be relaxed and anxious at the same time. It was argued that these were specific techniques based upon the principles of learning and behavior; hence, therapeutic benefits did not depend upon the nonspecific effects of mere suggestion or placebo. Behavior therapy was regarded by its developers as the first scientific therapy.

In all of its forms, the rise of psychotherapy may be explained in a variety of ways. The cultural role hypothesis argues that psychotherapists are essentially a controlling agency for the state and society. Their function is to help maintain the cultural norms and values by directly influencing persons at the individual level. This view holds that whatever psychotherapists might say, they occupy a position in the culture similar to that of authorities in educational and religious institutions. A related view argues that psychotherapy arose in Western culture to meet a deficiency in the culture itself. Such a view holds that if the culture were truly meeting the needs of its members, no therapeutic procedures would be required.

Psychotherapy has been explained as a scientific discovery, although exactly what was discovered depends on one's viewpoint. For example, behavior therapists might hold that the fundamental principles of behavior and learning were discovered, as was their applicability to emotional and mental problems. Others might hold that nonspecific or placebo effects were discovered, or at least placed in a naturalistic context. Another explanation follows the historical work of Henri Ellenberger and views psychotherapy as a naturalization of early religious practices: exorcism transformed to hypnotism, transformed to psychoanalysis. The religious demons became mental demons and, with the rise of modern psychopharmacology in the 1950's, molecular demons.

More cynical explanations view psychotherapy as a mistaken metaphor. Recalling that the word was originally written with a hyphen, they argue that it is not possible to perform therapy, a physical practice, on a mental or spiritual object. Thus, psychotherapy is a kind of hoax perpetuated by its practitioners because of a mistaken formulation. Others suggest that the correct metaphor is that of healing and hold that psychotherapy is the history of mental healing, or healing through faith, suggestion, persuasion, and other rhetorical means. Whatever one's opinion of psychotherapy, it is both a cultural phenomenon and a specific set of practices that did not exist prior to the nineteenth century and that have had enormous influence on all aspects of American culture.

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Terry Knapp

See also:

Abnormality: Behavioral Models; Abnormality: Psychodynamic Models; Analytic Psychotherapy; Cognitive Therapy; Madness: Historical Concepts; Operant Conditioning Therapies; Psychoanalysis; Psychosurgery; Psychotherapy: Children; Psychotherapy: Effectiveness; Psychotherapy: Goals and Techniques.

RATIONAL-EMOTIVE THERAPY

Type of psychology: Psychotherapy
Fields of study: Cognitive therapies

Developed by psychologist Albert Ellis, rational-emotive therapy aims to minimize the client's self-defeating style by helping the client acquire a more rational and logical philosophy of life. It has been successfully applied to marital couples, family members, individual patients, and group clients across a host of psychological difficulties, including alcoholism, depression, anxiety disorders, and sexual dissatisfaction.

Principal terms

A-B-C THEORY OF PERSONALITY: a theory in which activating events (A) are evaluated in light of a person's beliefs (B), which directly influence and shape consequential emotional (behavioral and cognitive) reactions (C)

IRRATIONAL BELIEFS: unreasonable evaluations that sabotage an individual's goals and lead to increased likelihood of experiencing needless pain, suffering, and displeasure

LONG-RANGE HEDONISM: the idea that well-adjusted people seek happiness and avoid pain today, tomorrow, and in the future

RATIONAL-EMOTIVE TREATMENT: a method of personality change that incorporates cognitive, emotional, and behavioral strategies; designed to help resist tendencies to be irrational, suggestible, and conforming

SCIENTIFIC THINKING: the idea that individuals intend to be reasonably objective, rational, and logical; via scientific thinking, attempts are made to construct hypotheses, collect data, and evaluate the validity of these personal hypotheses

Overview

Rational-emotive therapy (RET) was founded in 1955 by Albert Ellis following his disappointment with traditional methods of psychoanalysis. From 1947 to 1953, Ellis had practiced classical analysis and analytically oriented psychotherapy, but he came to the conclusion that psychoanalysis was a superficial and unscientific form of treatment. Specifically, rational-emotive therapy was developed as a combined humanistic, cognitive, and behavioral form of therapy. Although Ellis initially used RET primarily in individual formats, group and workshop formats followed quickly. Ellis would publish approximately fifty books and more than five hundred articles on RET, and he would present more than fifteen hundred public workshops.

According to Ellis in a paper in 1989, the philosophical origins of rational-emotive therapy include the Stoic philosophers Epictetus and Marcus Aurelius. In particular, Epictetus wrote that "people are disturbed not by things, but by the view

which they take of them" during the first century C.E.: in *The Encheiridion*. Ellis also gives much credit to the theory of human disturbance highlighted by psychotherapist Alfred Adler in the development of rational-emotive therapy. Specifically, Ellis was persuaded by Adler's conviction that a person's behavior originates from his or her ideas.

As Ellis began writing about and describing RET in the 1950's and 1960's, clinical behavior therapy was conceptually distinct and distant from Ellis's ideas. The primary similarity was that Ellis employed a host of behavioral techniques in his approach. As time passed, however, behavior therapy engaged in a controversial yet productive broadening of what was meant by "behavior" and started to include cognitions as a form of behavior that could be learned, modified, and studied.

Ellis's RET approach shares many similarities with other common cognitive behavioral approaches to treatment. These include Donald Meichenbaum's cognitive behavioral modification (focusing on self-instructional processes and adaptive coping statements), Maxie C. Maultsby, Jr.'s rational behavior therapy (which is essentially RET with some adaptations, including written self-analysis techniques and rational-emotive imagery), and Aaron T. Beck's cognitive therapy. Cognitive therapy has many similarities to RET but was developed independently; it uses fewer "hard-headed approaches." For example, Beck advocates the use of collaborative empiricism and a focus on automatic thoughts and underlying cognitive schemas. RET strongly emphasizes irrational beliefs, especially "unconditional shoulds" and "absolutistic musts," as the root of emotional and behavioral disturbances.

There are six principal propositions of rational-emotive therapy as Ellis described them in 1989. First, people are born with rational and irrational tendencies. That is, individuals may be either self-helping or self-defeating, short-range hedonists or long-range hedonists; they may learn by mistakes or repeat the same mistakes, and they may actualize or avoid actualizing their potentials for growth. Second, cultural and family experiences may exacerbate irrational thinking. Third, individuals may seem to think, act, and feel simultaneously. Thinking, however, appears actually to precede actions and feelings. For example, the process of "appraising" a situation usually triggers feelings. Fourth, RET therapists differ from person-centered therapists in that RET practitioners do not believe that a warm interpersonal relationship between therapist and patient is a sufficient or even necessary condition for effective change. RET therapists also do not believe that personal warmth is necessary in order to accept clients fully. In fact, it is important in RET treatment to criticize and point out the deficiencies in a person's behavior and thinking style. Moreover, Ellis argues that RET therapists often need to use "hard-headed methods" to convince clients to employ more self-discipline.

Fifth, rational-emotive therapists use a variety of strategies, including assertiveness training, desensitization, operant conditioning, support, and role playing. The usual goal of RET is to help rid clients of symptoms and modify underlying thinking styles that create symptoms. Ellis further identifies two basic forms of RET: general RET, which is similar to other forms of cognitive behavior therapy;

and preferential RET, which includes general RET but also emphasizes philosophic restructuring and teaches clients how to dispute irrational thoughts and inappropriate behaviors via rules of logic and the scientific method. Sixth, all emotional problems are caused by people's tendencies to interpret events unrealistically and are maintained by irrational beliefs about them.

Thus, the basic underlying tenet of RET is that emotional disturbances are primarily the result of irrational thinking. Specifically, RET argues that people upset themselves with "evaluative irrational beliefs" (rather than with "nonevaluative" irrational beliefs). For example, in a 1987 essay, Ellis described the following scenario:

> If you devoutly believe that your fairy godmother looks out for you and is always ready to help you, you may live happily and undisturbedly with this highly questionable and unrealistic Belief. But if you evaluate your fairy godmother's help as extremely desirable and go even further to insist that *because* it is desirable, you absolutely *must* at all times have her help, you will almost certainly make yourself anxious (whenever you realize that her magical help that you *must* have may actually be absent) and you will tend to make yourself extremely depressed (when you see that in your hour of need this help does not actually materialize).

Although many forms of irrationality exist, rational-emotive therapy focuses on a client's strong "desires" and "commands." Ellis has developed various lists of irrational beliefs that highlight the most common thinking difficulties of patients. These include such beliefs as "I must do well or very well"; "I am a bad or worthless person when I act weakly or stupidly"; "I need to be loved by someone who matters to me a lot"; "People must treat me fairly and give me what I need"; "People must live up to my expectations or it is terrible"; "My life must have few major hassles"; and "I can't stand it when life is unfair."

Ellis has refined his ideas about irrational thoughts to three primary beliefs. They are "I *must* do well and be approved by *significant* others, and if I don't do as well as I *should* or *must*, there is something really rotten about me. It is terrible that I am this way and I am a pretty worthless, rotten person"; "You (other humans with whom I relate, my original family, my later family that I may have, my friends, relatives, and people with whom I work) *must*, *ought*, and *should* treat me considerately and fairly and even *specially* (considering what a doll I am)!"; and "Conditions under which I live—my environment, social conditions, economic conditions, political conditions—must be arranged so that I easily and immediately, with no real effort, have a free lunch and get what I command." In summary, Ellis defines the three primary irrationalities as "I *must* do well; you *must* treat me beautifully; the world *must* be easy."

Psychological disturbances are based on irrational thinking and behaving. The origin of irrational beliefs and actions stems from childhood. Irrational beliefs are shaped in part by significant others (parents, relatives, and teachers), as well as from misperceptions on the part of children (such as superstitions and overinterpretation). Rational-emotive therapy also maintains that individuals have tendencies, which are both biologically and environmentally determined, for

growth and actualization of one's potential. On the other hand, Ellis argues that people also have powerful innate tendencies to condemn themselves, others, and the world when they do not get what they "childishly need." This pattern of self-sabotage is argued by Ellis to be both inborn and acquired during childhood. Moreover, via repetitive self-talk and self-evaluative tendencies, false beliefs are continually re-indoctrinated by the individual. From the RET perspective, self-blame and self-condemnation are the cornerstones of most emotional disturbances. By challenging self-blame and self-condemnation, via an analysis and refutation of irrational beliefs, a client can be helped.

Ellis defines mental health as incorporating self-interest, social interests, self-direction, tolerance, acceptance of ambiguity and uncertainty, scientific thinking, commitment, risk taking, self-acceptance, long-range hedonism, nonperfectionism, and self-responsibility for one's emotional disturbances. Three primary processes seem to be associated with mental functioning and mental disorders: self-talking, self-evaluating, and self-condemning. That is, individuals are constantly engaged in an internal dialogue (self-talk) with themselves, appraising and commenting upon events that occur in their lives. Individuals also are self-evaluating in that humans seek meaning and constantly evaluate events and themselves, frequently placing blame on themselves for events. Self-evaluating is thus often associated with self-condemnation. For example, this condemnation may start in response to evaluating oneself as doing poorly at work or in school, which in turn leads to feeling guilty. This vicious cycle then leads to condemning oneself for condemning oneself, condemning oneself for not being able to stop condemning oneself, and finally condemning oneself for entering psychotherapy and not getting better (Ellis, 1989).

Emotional and behavioral difficulties often occur when simple preferences are chosen above thoughtful decisions. Ellis believes that individuals have inborn growth and actualization tendencies, although they may become sabotaged through self-defeating and self-condemning patterns. Based on the RET model, clients benefit from exposure to three primary insights. Insight number one is that a person's self-defeating behavior is related to antecedent and understandable causes. Specifically, an individual's beliefs are more important in understanding emotional upset than are past or present activating events. Insight two is that individuals actually make themselves emotionally disturbed by re-indoctrinating themselves with irrational and unproductive kinds of beliefs. Insight three is that through hard work and practice, irrational beliefs can be corrected.

Applications

As detailed by Gerald Corey in 1986, practitioners of rational-emotive therapy actively teach, persuade, and direct clients to alter irrational styles of thinking and behaving. RET can be defined as a process of re-education in which clients learn to think differently and solve problems. The first step in treatment often focuses on distinguishing rational (or reasonable) thoughts from irrational (or unreasonable) beliefs. Educational approaches are employed to highlight for the client that he or she has acquired many irrational "shoulds, oughts, and musts." The second step in

treatment emphasizes an awareness of how psychological disturbances are maintained through a client's repeated reindoctrination of illogical and unreasonable beliefs. During the third phase of treatment, therapists assist clients in modifying maladaptive thinking styles and abandoning irrational beliefs. Via a variety of cognitive, emotive, and behavioral approaches, self-condemnation and self-blame are replaced with more rational and logical views. Finally, the fourth step in RET involves developing a rational lifestyle and philosophy. Specifically, from internalizing rules of logic and scientific thinking, individuals may prevent future psychological disturbances and live more productive lives.

The A-B-C theory of personality and the A-B-C (D-E) theory of emotional change are also central to RET approaches. "A" refers to an activating event. Activating events can include facts, events, behaviors, or perceived stimuli. "B" refers to beliefs triggered by the event or beliefs about the event. "C" refers to the consequential emotional (behavioral or cognitive) outcomes that proceed directly from beliefs. "D" is the application of methods to dispute or challenge irrational beliefs, and "E" refers to the effect of disputing beliefs on the emotional (behavioral or cognitive) reaction of the client.

Activating events are generally regarded as inherently neutral, and they have no particular emotional meaning in and of themselves. Thus, activating events do not directly cause emotions. Instead, beliefs about events primarily cause emotional reactions. For example, a woman who had been depressed for more than twelve months following the death of her husband from terminal cancer was participating in a hospice therapy group and had demonstrated little or no improvement over the last year. She reasoned that because her husband was dead, she would never feel happy again (nor "should" she feel happy again, since he was dead and she was "not entitled" to experience pleasure without him). She added, "He was the center of my life and I can never expect to feel happiness without him." Her resulting emotional reaction was severe depression, which accompanied her complicated grief and underlying anger.

In an effort to uncover and dispute her unreasonable beliefs, a variety of strategies were employed. First, group members provided feedback about her reasonable and unreasonable ideas following (and during) her husband's death. In particular, group members pointed out that she could expect to experience happiness again in her life since she had experienced pleasure on many occasions before she met her husband, while her husband was away during military service, and while they were married, and she enjoyed activities in which he did not share. Next, her emotional reaction was examined and viewed as being caused not by her husband's death, but instead by the manner in which she interpreted his death (as awful), her own ability to cope and change (as limited), and her future (as hopeless). A variety of behavioral and cognitive strategies were employed to challenge her irrational and self-condemning assumptions. Behavioral homework assignments included increasing activity levels and engaging in pleasurable activities to challenge the notion that she could never experience happiness again. Self-confidence and hope were fostered via strategies which highlighted her ability to cope with stress. This client also found cognitive homework assignments,

wherein she listed her irrational beliefs on a daily log and then disputed those beliefs or replaced or modified them with more reasonable statements, to be helpful.

Rational-emotive therapy and its various techniques have been evaluated in at least two hundred studies. Although many of these studies have been associated with various methodological flaws, the effectiveness of RET with a broad range of psychological disturbances is impressive. At the Evolution of Psychotherapy Conference in Phoenix, Arizona, in 1985, Ellis himself identified several limitations of RET (and other therapies). These included several key "irrationalities." Because individuals falsely believe that they are unchangeable, they fail to work to change themselves. Because individuals falsely believe that activating events cause emotional reactions, they blame the activating events and fail to change their beliefs about them. Individuals falsely believe that unpleasant emotional reactions must be good or useful and should be cherished instead of minimized. Individuals are often confused about emotional reactions (for example, concern and caution versus anxiety and panic) and experience difficulty surrendering the inappropriate negative feelings. Because some RET techniques require subtle and discriminative styles of thinking by clients, some clients are not capable of succeeding in therapy. RET is not particularly useful for young children or developmentally delayed individuals (typically RET requires a chronological age of at least eight years and average intelligence).

Perspective and Prospects

Albert Ellis is regarded by many psychologists as the most prominent theorist in the cognitive behavioral school of psychotherapy. His insights and conceptualizations are evident in many of the various cognitive behavioral psychotherapeutic approaches. Specifically, the A-B-C theory of personality is well regarded among cognitive behavioral therapists, and many of Ellis's treatment strategies are frequently used by clinicians across other schools of psychotherapy. On the other hand, Ellis's interpersonal style in treatment has been criticized by many authors. Specifically, a warm, confiding relationship between therapist and client is often de-emphasized in Ellis's writings, and confrontational interactions may be commonly observed in videotapes of rational-emotive therapy. It also appears, however, that more attention is being paid to the quality of the interpersonal relationship between RET practitioner and client. Moreover, the strengths of the RET approach are not based on the style of any particular therapist, but instead are evident in its underlying theory and therapeutic strategies.

Undoubtedly, the influence of rational-emotive therapy in the field of psychotherapy will continue to be prominent. Ellis has written extensively on the application of RET principles to diverse psychological disturbances. The Institute for Rational-Emotive Therapy in New York continues to train hundreds of therapists and serves as a distribution center for most of the books and pamphlets developed by RET therapists.

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Gregory L. Wilson

See also:

Cognitive Behavior Therapy; Cognitive Therapy; Couples Therapy; Depression; Group Therapy; Person-Centered Therapy; Psychotherapy: Effectiveness; Psychotherapy: Goals and Techniques; Strategic Family Therapy.

Reality Therapy

Type of psychology: Psychotherapy
Fields of study: Cognitive therapies

Reality therapy is a system of counseling or psychotherapy which attempts to help clients accept responsibility for their behavior. Its aim is to teach clients more appropriate patterns of behavior. Its significance is that it helps clients meet their basic needs more effectively.

Principal terms

FREEDOM: basic to reality therapy; emphasizes that people are free to choose how they act

MORALITY: standards of behaving; the "rightness" or "wrongness" of behavior

RESPONSIBILITY: basic to reality therapy; stresses that people are responsible for their behavior

SUCCESS IDENTITY: what reality therapy strives for; describes people who are able to give and receive love, feel worthwhile, and meet their needs appropriately

VALUE JUDGMENTS: making decisions about one's behavior as to its merit or value

Overview

William Glasser, the founder of reality therapy, believes that people are motivated to fulfill five basic needs: belonging, power, freedom, fun, and survival. When these needs are not met, problems begin. Individuals lose touch with the objective reality of life (what is appropriate behavior and what is not) and often stray into patterns of behavior that are self-defeating or destructive. The reality therapist attempts to help such people by teaching them more appropriate patterns of behavior. This, in turn, will enable individuals to meet their basic needs more effectively.

Reality therapy differs from conventional theories of counseling or psychotherapy in six ways. Reality therapy rejects the concept of mental illness and the use of diagnostic labels; it works in the present, not the past; it rejects the concept of transference (the idea that clients relate to the therapist as an authority figure from their past). Reality therapy does not consider the unconscious to be the basis of present behavior. The morality of behavior is emphasized. Finally, reality therapy teaches individuals better ways to fulfill their needs and more appropriate (and more successful) ways to deal with the world.

In practice, reality therapy involves eight steps. First the therapist makes friends, or gains rapport and asks clients what they want. Then the client is asked to focus on his or her current behavior. The client is helped to make a realistic evaluation of his or her behavior. Therapist and client make a plan for the client to do better, which consists of finding more appropriate (realistic) ways of behaving. The therapist gets a commitment from the client to follow the plan that has been worked out. The therapist accepts no excuses from the client if the plan is not followed. No

form of punishment is utilized, however, if the client fails to follow through. Finally, the therapist must never give up on the client.

Paramount to the success of reality therapy is the planning stage, consisting of discovering ways to change the destructive or self-defeating behavior of the client into behavior oriented toward success. Success-oriented behavior leads to a success identity: the feeling that one is able to given and receive love, feel worthwhile, and meet one's needs appropriately. Glasser states that putting the plan into writing, in the form of a contract, is one way to help ensure that the client will follow through. The client, not the therapist, is then held accountable for the success or failure of follow-through. Commitment is, in many ways, the keystone of reality therapy. Resolutions and plans of action become meaningless unless there is a decision (and a commitment) to carry them out.

Like behavior therapists, reality therapists are basically active, directive, instructive, and oriented toward action. Reality therapists use a variety of techniques, including role-play, humor, question-and-answer sessions, and confrontation. They do not employ some commonly accepted therapeutic techniques, such as interpretation, insight, free association, analysis of transference and resistance, and dream analysis. In addition, reality therapists rarely recommend or promote the use of drugs or medications in treatment.

Confrontation is one technique of special consideration to reality therapy. Through confrontation, therapists force clients to evaluate their present behavior and to decide whether they will change it. Reality therapy maintains that the key to finding happiness and success is accepting responsibility. Thus the therapist neither accepts any excuses from the client for his or her self-defeating or destructive behavior nor ignores the reality of the situation (the consequences of the client's present behavior). The client is solely responsible for his or her behavior. Conventional psychotherapy often avoids the issue of responsibility; the client (or "patient") is thought to be "sick" and thus not responsible for his or her behavior.

Throughout reality therapy, the criterion of what is "right" plays an important role in determining the appropriateness of behavior; however, the therapist does not attempt to state the morality of behavior. This is the task and responsibility of the client. Clients are to make these value judgments based on the reality of their situation. Is their current behavior getting them what they want? Does their current behavior lead to success or to failure? The basic philosophy of reality therapy is that people are ultimately self-determining and in charge of their lives. People are, in other words, free to choose how they act and what they will become.

The strengths of reality therapy are that it is relatively short-term therapy (not lasting for years, as classical psychoanalysis does), consists of simple and clear concepts that can be used by all types of helpers, focuses on present behavioral problems, consists of a plan of action, seeks a commitment from the client to follow through, stresses personal responsibility, can be applied to a diverse population of clients (including people in prison, people addicted to drugs and alcohol, and juvenile offenders), and accepts no excuses, blame, or rationalizations.

The weaknesses of reality therapy are that it fails to recognize the significance of the unconscious or of intrapsychic conflict, minimizes the importance of one's

past in present behavior, appears overly simplistic (problems are rarely simplistic in nature), may give the therapist an inappropriate feeling of power or control, minimizes the existence of biological or biochemical factors in mental illness, and fails to recognize the significance of psychiatric drugs in the treatment of mental illness.

Applications

Reality therapy can be applied to individuals with many sorts of psychological problems, from mild to severe emotional disorders. It has been used in a variety of counseling situations, including individual and group counseling, marriage and family counseling, rehabilitation counseling, and crisis intervention. The principles of reality therapy have been applied to teaching, social work, business management, and community development. Reality therapy is a popular method of treatment in mental hospitals, correctional institutions, substance abuse centers, and facilities for delinquent youth.

Reality therapists usually see their clients once weekly, for between forty-five minutes and one hour per visit. Therapists come from a variety of disciplines, including psychiatry, psychology, counseling, and social work. Important in applying reality therapy is that the therapist adopt no rigid rules. The therapist has a framework to follow, but within that framework he or she should be as free and creative as possible.

Reality therapy begins with the establishment of a working relationship. Once rapport is established, the process proceeds through an exploration of the client's needs and wants and then to an exploration of the client's present behavior.

Reality therapists stress current behavior. The past is used only as a means of enlightening the present. The focus is on what a client is doing now. Through skillful questioning, clients are encouraged to evaluate current behavior and to consider its present consequences. Is their current behavior getting them what they want or need? If not, why? As this process of questioning and reflecting continues, clients begin to acknowledge the negative and detrimental aspects of their current behavior. Slowly, they begin to accept responsibility for these actions.

Once responsibility is accepted, much of the remaining work consists of helping clients identify specific and appropriate ways to fulfill their needs and wants. This is often considered the teaching stage, since the therapist may model or teach the client more effective behavioral patterns.

Marriage therapy is often practiced by reality therapists; the number of sessions ranges from two to ten. Initially, it is important to clarify the couple's goals for marriage counseling: Are they seeking help in order to preserve the marriage, or have they already made the decision to end the relationship? In marriage counseling, Glasser recommends that the therapist be quite active, asking many questions while trying to understand the overall patterns of the marriage and of the interrelationship.

It is difficult to discuss the application of reality therapy to specific problems, since reality therapists do not look at people as objects to be classified according to diagnostic categories. Reality therapists, like others in the holistic health move-

ment, believe that most ailments—whether physical or psychological—are manifestations of the way people choose to live their lives. William Glasser has stated:

> It makes little difference to a reality therapist what the presenting complaint of the client is; that complaint is a part of the way the client is choosing now to deal with the world. . . . When the client begins to realize that instead of being the victim of some disease or diagnostic category he is a victim of his own ineffective behavior, then therapy begins and diagnosis becomes irrelevant.

The following example shows how the eight steps of reality therapy can be applied to a real-life situation. The client's name is Jim; he is thirty-five years old. For years, Jim has been unable to hold a job. He is twice divorced and is subject to angry outbursts. He has been arrested three times for disorderly conduct. Recently Jim has lost his driver's license because of alcohol intoxication; he has been referred by the court for counseling.

In step one, the therapist makes friends and asks the client what he or she wants. Here the reality therapist, David, will make himself available to Jim as a caring, warm individual but not as someone whom Jim can control or dominate. David will ask, "What is it that you want?" Jim says, "Well, what I want is a job." Once the client states what he or she wants, the therapist can move to step two, asking the client to focus on his or her current behavior. Together David and Jim talk about Jim's behavior—his tendency for angry outbursts, his arrests, and his problems with alcohol.

The third step attempts to get clients to evaluate their present behavior and to see whether what they are now doing is getting them what they want. David asks Jim whether getting in fights is helping him find a job. As this step unfolds, Jim begins to understand that what he is doing is not helping him to become employable. Paramount at this step is that the clients see that their current behavior is within their control: They "choose" to act this way.

Once clients begin to see that what they are doing is not working (not getting them what they want), then the next step (step four) is to help them make a plan to do better. Once Jim realizes that getting in fights and drinking is ineffective and self-defeating, then David will begin to talk with him about a plan to change his behavior and find more appropriate ways of behaving. They plan a course of action. To "cement" this plan, a contract is made. The contract might state that Jim will not get in fights, Jim will control his anger, and Jim will stay out of bars and refrain from alcohol. David may also advise Jim on how to get a job: where to look for work, whom to contact, even what to wear and say during a job interview. Throughout this job search, which may be long and frustrating, David needs to be encouraging and supportive.

Step five involves getting a commitment from the client to follow through. David now asks Jim, "Are you going to live up to the contract? Are you going to change your behavior?" David needs to stress that commitment is the key to making this plan a success. David also must accept only a yes or no answer from Jim. Reality therapy does not accept excuses or reasons why plans are not carried through; this is step six. David's response to excuses should be that he is not interested in why Jim cannot do it; he is interested in when Jim will do it.

Step seven holds that David needs to be "tough" with Jim, but must not punish him if he does not follow through. Instead of finding ways to punish Jim, David may ask instead, "What is it that will get you to follow through?" Reality therapy recognizes that punishment is, in the long run, rarely effective. Step eight is simply never giving up. For most people, change does not come naturally, nor is it easy. A good therapist, like a good friend, does not give up easily. David needs to persevere with Jim. Through perseverance, Jim's life can change.

Perspective and Prospects

The tenets of reality therapy were formed in the 1950's and 1960's as a reaction to the dominant psychotherapeutic approaches of the times, which were closely based on Freudian psychoanalysis. William Glasser, the founder of reality therapy, was trained as a physician and psychoanalyst, but during his psychiatric training in the early 1950's, he became more and more dissatisfied with the psychoanalytic approach. What disturbed him was the insistence of psychoanalysis on viewing the patient as a victim of forces beyond his or her control. In other words, the person was not considered responsible for his or her current behavior.

In 1956, Glasser became a consultant to a school for delinquent female adolescents in Ventura, California, developing a new therapeutic approach that was in sharp opposition to classical psychoanalysis. In 1962, he spoke at a meeting of the National Association of Youth Training Schools and presented his new ideas. The response was phenomenal; evidently many people were frustrated with the current mode of treatment.

Initially Glasser was hesitant to state his dissatisfaction with the conventional approach to treatment, psychoanalysis; however, his faculty supervisor, G. L. Harrington, was supportive. This started a long relationship in which Harrington helped Glasser formulate many of the ideas that became reality therapy.

In 1965, Glasser put his principles of counseling into a book entitled *Reality Therapy: A New Approach to Psychiatry*. Since then, he has written extensively, including *Schools Without Failure* (1968), *The Identity Society* (1972), *Positive Addiction* (1976), *Stations of the Mind: New Directions for Reality Therapy* (1981), *Control Theory: A New Exploration of How We Control Our Lives* (1985), and *The Quality School* (1990). The Institute for Reality Therapy, in Canoga Park, California, offers programs designed to teach the concepts and practice of reality therapy. A journal, the *Journal of Reality Therapy*, publishes articles concerning the research, theory, and application of reality therapy. Reality therapy has seen remarkable success since its conception, and many consider it one of the important approaches to counseling and psychotherapy.

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Ted Eilders

See also:

Abnormality: Behavioral Models; Abnormality: Cognitive Models; Behavioral Family Therapy; Cognitive Behavior Therapy; Cognitive Therapy; Psychoanalysis; Psychotherapy: Goals and Techniques; Rational-Emotive Therapy.

SCHIZOPHRENIA

Type of psychology: Psychopathology
Fields of study: Organic disorders; schizophrenias

A disease of the brain characterized by withdrawal from the world, delusions, hallucinations, and other disorders in thinking.

Principal terms

CATATONIA: a state in which patients become immobile and fixed in a rigid position for long periods

DELUSION: a false view of what is real

HALLUCINATION: a false or distorted perception of objects or events

HEREDITARY: passed down from generation to generation through the genes

MANIA: a mental disorder marked by extreme hyperactivity, agitation, racing thoughts, and distractibility

Causes and Symptoms

Schizophrenia is a disease of the brain. Eugen Bleuler (1857-1939), a Swiss psychiatrist, first named the disease in a 1908 paper that he wrote entitled "Dementia Praecox: Or, The Group of Schizophrenias." In 1911, he published a book with the same title describing the disease in more detail. Bleuler served as the head of an eight hundred-bed mental hospital in Switzerland and treated the worst and most chronic cases. Beginning in 1896, he embarked on a project to understand the inner world of the mentally ill. He developed work therapy programs for his patients, and he visited them and talked to them almost every day. Bleuer insisted that the hospital staff show the same kind of dedication and support for his clients that he did.

Bleuler's discoveries challenged the traditional view of the causes and treatment of the disease. The traditional view, based on the work of the great German psychiatrist Emil Kraepelin (1856-1926), held that dementia, as it was called, always got worse and that the patient's mind continued to degenerate until death. Kraepelin suggested that the disease, which he called dementia praecox, was hereditary and was the result of a poisonous substance that destroyed brain cells. Bleuler's investigation of living victims led him to reject this view. Instead, he argued, continuing deterioration does not always take place because the disease can stop or go into remission at any time. The disease does not always follow a downhill course. Bleuler's views promised more hope for patients suffering from schizophrenia, which means "to split the mind."

The symptoms of schizophrenia are more well known than the cause. Diagnosis is based on a characteristic set of symptoms that must last for at least several months. The "psychotic symptoms" include a break with reality, hallucinations, delusions, or evidence of thought disorder. These are referred to as positive symptoms. "Negative" symptoms can also be displayed; they include withdrawal

Swiss psychiatrist Eugen Bleuler, who first named the disease "schizophrenia" in a 1908 paper. His discoveries challenged the traditional view of its causes and treatment.

from society, the inability to show emotion or to feel pleasure or pain, total apathy, and the lack of a facial expression. The patient simply sits and stares blankly at the world, no matter what is happening.

Schizophrenia can take many forms. Among the most frequent are those that display acute symptoms under the following labels. Melancholia includes depression and hypochondriacal delusions, with the patient claiming to be extremely physically ill but having no appropriate symptoms. Mania is characterized by

withdrawal and a mood of complete disinterest in the affairs of life. Schizophrenia can also be catatonic, in which patients become immobile and seem fixed in one rigid position for long periods of time. Delusional states accompanied by hallucinations frequently involve hearing voices, which often scream and shout abusive and derogatory language at the patient or make outrageous demands. The delusions are often visual and involve frightening monsters or aliens sent to do harm to the afflicted person.

The above symptoms can often be accompanied by disconnected speech patterns, broken sentences, and excessive body movement and purposeless activity. Victims of the disease also suffer through states of extreme anger and hostility. Cursing and outbursts of uncontrolled rage can result from relatively insignificant causes, such as being looked at "in the wrong way." Many times, anniversaries of important life experiences, such as the death of a parent or the birthday of a parent or of the patient, can set off positive and negative symptoms. Hallucinations and mania can also follow traumatic events such as childbirth or combat experiences during war.

The paranoid form of schizophrenia is the only one that usually develops later in life, usually between the ages of thirty and thirty-five. It is a chronic form, meaning that patients suffering from it usually become worse. Paranoid schizophrenia is characterized by a feeling of suspiciousness of everyone and everything, hallucinations, and delusions of persecution or grandiosity. This form becomes so bad that many victims, perhaps one out of three, eventually commit suicide simply to escape their tormentors. Others turn on their alleged tormentors and kill them, or at least someone who seems to be responsible for their terrible condition.

Other chronic forms of the disease include hebephrenic schizophrenia. In this case, patients suffer disorders of thinking and frequent episodes of incoherent uttering of incomprehensible sounds or words. The victims move quickly from periods of great excitement to equally exhausting periods of desperate depression. They frequently have absurd, bizarre delusions such as sex changes, identification with and as godlike creatures, or experiences of being born again and again. Those suffering from "simple" schizophrenia exhibit constant feelings of dissatisfaction with everything in their lives or a complete feeling of indifference to anything that happens. They are usually isolated and estranged from their families or any other human beings. Patients with these symptoms tend to live as recluses with barely any interest in society, in work, or even in eating or in talking to anyone else.

The various types of schizophrenia start at different times in different people. Generally, however, except for the paranoid form, the disease develops during late adolescence. Men show signs of schizophrenia earlier than women, usually by age eighteen or nineteen. It is unusual for signs of the disorder to appear in males after age twenty. In women, symptoms may not appear until the early twenties and sometimes are not evident until age thirty. Sometimes, there are signs in childhood. People who later develop schizophrenia tended to be withdrawn and isolated as children and were often made fun of by others. Not all withdrawn children develop the disease, however, and there is no way to predict who will get it and who will not.

Schizophrenia is a genetic disease. Individuals with the disease are very likely to have relatives—mothers, fathers, brothers, sisters, cousins, grandmothers, or grandfathers—with the disorder. Surveys indicate that 1 percent of all people have the disease. A person with one parent who has the disease is ten times more likely to develop schizophrenia than a member of the general public. Thirty-nine percent of people who have both parents afflicted with the disease also develop schizophrenia.

Other factors are involved in the disease in addition to heredity. E. Fuller Torrey, a leading researcher into the causes of schizophrenia, discovered important information about the origins of the disease in studies that he made of the brains of identical twins. Magnetic resonance imaging (MRI) of their brains showed that individuals diagnosed with the illness had slightly smaller brains than those without the disease. The difference in size was most apparent in the temporal lobe, the area that controls emotions and memory. Apparently, something goes wrong in the development of the temporal lobe of the fetus during the fourth to sixth month of pregnancy. Torrey speculated that this abnormality might result from a viral infection. The antibodies that normally protect the brain seem to get mixed up and attack the brain itself. Why or how this happens is not known. One possibility is that a nutritional deficiency in the mother might cause the temporal lobes to grow in an abnormal manner.

As to why the disease develops later in life rather than at birth, investigators provide the following information. First, the brain develops more slowly than other organs and does not stop developing until late adolescence. Many genetic diseases remain dormant until later in life, such as Huntington's chorea and multiple sclerosis.

Schizophrenia operates by disrupting the way in which brain cells communicate with each other. The neurotransmitters that carry signals from one brain cell to another might be abnormal. Malfunction in one of the transmitters, dopamine, seems to be a source of the problem. This seems likely because the major medicines that are successful in the treatment of schizophrenia limit the production or carrying power of dopamine. Another likely suspect is serotonin, a transmitter whose presence or absence has important influences on behavior.

Treatment and Therapy

Since the 1950's, many medications have been developed that are very effective in treating the symptoms of schizophrenia. Psychotherapy can also be effective and beneficial to many patients. Drugs can be used to treat both positive and negative symptoms. Some such as Haldol, Mellaril, Prolixin, Navane, Stelazine, and Thorazine are used to treat positive symptoms. Clozapine and Risperidone can be used for both positive and negative symptoms. These medications work by blocking the production of excess dopamine, which may cause the positive symptoms, or by stimulating the production of the neurotransmitter, which reduces negative symptoms. Clozapine blocks both dopamine and serotonin, which apparently makes it more effective than any of the other drugs.

The chief problem resulting from the use of such drugs are the terrible side

effects that they can produce. The most dreaded side effect, from the point of view of the patient, is tardive dyskinesia (TD). This problem emerges only after many years of use. TD is characterized by involuntary movement of muscles, frequent lip-smacking, facial grimaces, and constant rocking back and forth of the arms and the body. It is completely uncontrollable.

Dystonias are another side effect. Symptoms include the abrupt stiffening of muscles, such as the sudden contraction of muscles in the arms, neck, and face. Most of these effects can be controlled or reversed with antihistamines. Some patients receiving medication are afflicted with effects similar to those movements associated with Parkinson's disease. They suffer from the slowing of movements in their arms and legs, tremors, and muscle spasms. Their faces seem frozen into a sad, masklike expression. These effects can be treated with medication. Another problem is akathisia, a feeling developed by many patients that they cannot sit still. Their jumpiness can be treated with Valium or Xanax. Some of these side effects are so severe or embarrassing that patients cite them as the major reason that they do not take their medicine.

Many patients report great value in family or rehabilitation therapy. These therapies are not intended to cure the disease or to "fix" the family. Instead, they are aimed at helping families learn how to live with mentally ill family members. Family support is important for victims of schizophrenia because they usually are unable to live on their own. Therapy can also help family members understand and deal with their frustration and the constant pain that results from knowing that a family member is very ill and probably will not improve much. Rehabilitation therapy is an attempt to teach patients the social skills that they need to survive in society.

The results of treatment are not always positive, even with medication and therapy. Ten percent of people with schizophrenia commit suicide rather than trying to continue living with the terrible consequences of the disease.

Perspective and Prospects

Hopes for improving the treatment of schizophrenia rest mainly on the continuing development of new drugs. Several studies suggest that psychotherapy directed at improving social skills and reducing stress help many people with the disease improve the quality of their lives. It is known that stress-related emotions lead to increases in delusions, hallucinations, social withdrawal, and apathy. Therapists can help patients find ways of dealing with stress and living in communities. They encourage their patients to deal with feelings of hostility, rage, and distrust of other people. Family therapy can teach all members of a family how to live with a mentally ill family member. Such therapy, along with medication, can produce marvelous results.

One study of ninety-seven victims of schizophrenia who lived with their families, received individual therapy, and took their medications showed far fewer recurrences of acute symptoms than did a group that did not get such help. Among those fifty-four individuals who received therapy who lived alone or with nonfamily members, schizophrenia symptoms reappeared or worsened over the same

three-year period of the study. People living alone usually had more severe symptoms to start out with and found it difficult to find housing, food, or clothing, even with therapy. The demands of life and therapy apparently were too much for them. The major problem with this kind of treatment, which seems to work for people in families, is that it is expensive.

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Leslie V. Tischauser

See also:

Anxiety Disorders; Depression; Hypochondriasis, Conversion, Somatization, and Somatoform Pain; Manic-Depressive Disorder; Paranoia; Psychosis; Schizophrenia: High-Risk Children; Suicide.

SCHIZOPHRENIA
High-Risk Children

Type of psychology: Psychopathology
Fields of study: Organic disorders; schizophrenias

In order to prevent an illness, it is necessary to have information about specific indicators of risk. Researchers have been conducting studies of children whose parents suffer from schizophrenia in order to identify the indicators of risk for this psychiatric illness; preliminary findings indicate that it may someday be possible to prevent the onset of schizophrenia.

Principal terms

ETIOLOGY: the study of the causes of disease
GENETICS: the biochemical basis of inherited characteristics
LONGITUDINAL: dealing with the growth or change in individuals over a period of time
PREMORBID: the period before the onset of a disease
SCHIZOPHRENIA: a serious mental illness that is characterized by psychotic symptoms, such as delusions, hallucinations, and thought disorders

Overview

The term "high-risk" has been applied to biological offspring of schizophrenic parents, because they are known to be at genetic risk for the same disorder shown by their parents. Numerous researchers are studying high-risk children in order to shed light on the origins of schizophrenia. This approach has many advantages over other research methods and has already yielded some important findings.

The importance of research on children at risk for schizophrenia stems from a need to understand the precursors of the illness. Over the years, researchers have studied schizophrenia from many different perspectives and with a variety of methods. Despite many decades of work, however, investigators have not yet been successful in identifying the causes or developing a cure. Some progress has been made in clarifying the nature and course of schizophrenia, and there have been considerable advances in the pharmacological treatment of symptoms; however, the precursors and the origins still remain a mystery.

Because the onset of schizophrenia usually occurs in late adolescence or early adulthood, patients typically do not come to the attention of investigators until they have been experiencing symptoms for some period of time. At that point, researchers have to rely on the patient and other informants for information about the nature of the individual's adjustment prior to the onset of the illness. These retrospective accounts of the patient's functioning are often sketchy and can be biased in various ways. Yet it is well accepted that progress toward the ultimate goal—the prevention of schizophrenia—will not be achieved until researchers are able to identify individuals who are vulnerable to the disorder.

Possible Signs of Schizophrenia in Children

- trouble discerning dreams from reality
- seeing things and hearing voices that are not real
- confused thinking
- vivid and bizarre thoughts and ideas
- extreme moodiness
- peculiar behavior
- concept that people are "out to get them"
- behaving younger than chronological age
- severe anxiety and fearfulness
- confusing television or movies with reality
- severe problems in making and keeping friends

In response to this concern, several investigators, most notably Sarnoff Mednick and Tom McNeil, emphasized the importance of studying the development of individuals known to be at heightened statistical risk for schizophrenia. Specifically, it was proposed that repeated assessments should be conducted so that data on all aspects of the development of at-risk children would be available by the time they enter the adult risk period for schizophrenia. In this way, it might be possible to identify precursors of the illness in subjects who had not yet received any treatment for the disorder. Another major advantage of studying subjects prior to the provision of treatment is that only then is it possible to differentiate true precursors of the illness from the consequences or side effects of treatment for the illness.

By the late 1950's, it was well established that schizophrenia tends to run in families. The general population rate for the disorder is about one in a hundred. In contrast, it has been estimated that children who have one biological parent with schizophrenia have a 10 to 15 percent chance of developing the disorder. When both biological parents are diagnosed with schizophrenia, the risk rate is thought to be around 40 percent. It is apparent, therefore, that offspring of schizophrenic parents are indeed at heightened risk for developing the same disorder. Thus, Mednick encouraged researchers to conduct longitudinal studies of these "high-risk" children.

The first large-scale prospective longitudinal study of high-risk children was initiated in Denmark in the mid-1960's by Mednick and Fini Schulsinger. They followed a group of one hundred children who had at least one schizophrenic parent and two hundred comparison children whose parents had no psychiatric disorder. Since the Danish study was initiated, a number of other research groups have initiated similar high-risk research programs. These projects are now under way in several United States cities (including New York City; Rochester, New York; Minneapolis, Minnesota; and Atlanta, Georgia) as well as in other countries.

Applications

One of the major challenges in conducting high-risk research is locating the sample. Schizophrenia is a relatively rare disorder in that it occurs in about 1 percent of the general population. Moreover, because most schizophrenic patients experience an onset of illness in late adolescence or early adulthood, they are less likely to marry or have children. This is especially true of schizophrenic patients who are men. Consequently, the majority of the subjects of high-risk research are

offspring of schizophrenic mothers. Further, of the schizophrenic women who do have children, a substantial portion do not keep their children but instead place them for adoption. This further complicates the task of identifying samples of high-risk children. In order to be assured of identifying a sample of adequate size, researchers in this field establish formal arrangements with local treatment facilities in order to increase their chances of identifying all the high-risk children in their geographic area.

Another important issue confronted by high-risk researchers is the question of when in the child's life span the study should be initiated. Most investigators are interested in identifying the very earliest signs of vulnerability for schizophrenia. Therefore, it is desirable to initiate a high-risk study with subjects who are infants. In this way, investigators will be able to examine the entire premorbid life course of patients. If there are any markers of vulnerability apparent in infancy, they will be able to identify them. The investigator who initiates a study of infant subjects, however, must wait an extended period of time in order to gather any information about their adult psychiatric outcomes. In order to reduce the period between the initiation of the study and the entry of the subjects into the major risk period for schizophrenia, most investigators have initiated high-risk projects on subjects who are in middle or late childhood.

The problem of attrition (loss of subjects) is another one of concern to high-risk researchers. As mentioned, the long-term goal is to compare those high-risk children who succumb to schizophrenia to those who do not. Consequently, the most crucial information will be provided only when the researchers are knowledgeable about the adult psychiatric outcome of the subjects. Because a sample of a hundred high-risk children may eventually yield only ten to fifteen schizophrenic patients, it is of critical importance to investigators that they maintain contact with all subjects so that they can determine their adult psychiatric outcomes.

Finally, the question of how to select an appropriate comparison group is a salient one to high-risk researchers. Again, one of the ultimate goals is to identify specific signs of vulnerability to schizophrenia. An important question is whether the signs identified by researchers are simply manifestations of vulnerability to any adult psychiatric disorder or signs of specific vulnerability to schizophrenia. In order to address this question, many researchers include groups of children whose parents have psychiatric disorders other than schizophrenia.

Reports on the developmental characteristics of high-risk children have been published by eleven high-risk research groups. These studies have revealed some important differences between children of schizophrenic parents and children whose parents have no mental illness. The differences that have been found tend to fall into three general areas: motor functions, cognitive functions, and social adjustment. When compared to children of normal parents, high-risk subjects have been found to show a variety of impairments in motor development and motor abilities. Infant offspring of schizophrenic parents tend to show delays in the development of motor skills, such as crawling and walking. Similarly, studies of high-risk subjects in their middle childhood and early adolescent years reveal deficits in fine and gross motor skills and coordination. It is important to empha-

size, however, that these deficiencies are not of such a severe magnitude that the child would be viewed as clinically impaired in motor skills. Yet the deficiencies are apparent when high-risk children, as a group, are compared to children of normal parents.

The occurrence of motor development delays and abnormalities in high-risk children is consistent with the etiologic assumptions made by most researchers in the field. Specifically, such abnormalities would be expected in a disorder that is presumed to be attributable to a central nervous system impairment that is, at least in part, genetically determined.

Numerous studies have found that children at high risk for schizophrenia also show impairments in cognitive functions. Although their scores on standardized tests of intelligence are within the normal range, they tend to be slightly below that of children of normal parents. With regard to specific abilities, investigators have found that high-risk children show deficiencies in their capacity to maintain and focus attention. These deficiencies are apparent as early as the preschool years and involve the processing of both auditory and visual information. Because attentional deficits have been found so consistently in high-risk children, some researchers in the field have suggested that these deficits may be a key marker of risk for schizophrenia.

When compared to children of parents without psychiatric disorder, offspring of schizophrenic parents tend to manifest a higher rate of behavioral problems. These include a higher rate of aggressive behaviors, as well as an increased frequency of social withdrawal. In general, children of schizophrenic parents are perceived as less socially competent than comparison children. It is important to take into consideration, however, that children of parents with other psychiatric disorders are also found to show problems with social adjustment. Consequently, it is unlikely that behavioral adjustment problems are uniquely characteristic of risk for schizophrenia.

Only a subgroup—in fact, a minority—of high-risk children will eventually manifest schizophrenia. The most significant question, therefore, is not what differentiates high-risk children from a comparison group, but rather what differentiates high-risk children who develop schizophrenia from high-risk children who do not. Only a few high-risk research projects have followed their subjects all the way into adulthood. Only limited data are thus available regarding the childhood characteristics that predict adult psychiatric outcome. The findings from these studies confirm the predictions made by the researchers. Specifically, the high-risk children who eventually develop schizophrenia show more evidence of motor abnormalities and attentional dysfunction in childhood than those who do not.

Perspective and Prospects

As is the case with all approaches to research, the high-risk method has some limitations. One limitation concerns whether the findings from these studies can be generalized to a wider population. Although it is true that schizophrenia tends to run in families, it is also true that the majority of schizophrenic patients do *not* have a schizophrenic parent. As a result, the subjects of high-risk research may

represent a unique subgroup of schizophrenic patients. The fact that they have a parent with the illness may mean that they have a higher genetic loading for the disorder than do schizophrenic patients whose parents have no mental illness. Moreover, there are undoubtedly some environmental stresses associated with being reared by a schizophrenic parent. In sum, high-risk children who become schizophrenic patients may differ from other schizophrenic patients both in terms of genetic factors and in terms of environment. Some other problems with the method, mentioned above, include subject attrition and the extensive waiting period required before adult psychiatric outcome is determined.

Some investigators have attempted to address the issue of identifying markers of vulnerability with alternative methodologies. For example, it has been shown that children with behavioral problems are more likely to develop schizophrenia in adulthood than are children who manifest no significant behavioral difficulties. Thus, some researchers are conducting longitudinal studies of maladjusted children in order to identify precursors of schizophrenia. Taking a novel approach, one study has utilized childhood home movies of adult-onset schizophrenic patients as a database for identifying infant and early childhood precursors. Up to this point, the findings from these studies are consistent with those from high-risk research.

Based on the research findings, there is good reason to believe that individuals who succumb to schizophrenia in adulthood manifested signs of vulnerability long before the onset of the disorder, perhaps as early as infancy. These findings have some important implications. First, they provide some clues to etiology; they suggest that the neuropathological process underlying schizophrenia is one that begins long before the onset of the clinical symptoms that define the illness. Thus, the search for the biological bases of this illness must encompass the entire premorbid life course. Second, the findings suggest that it may eventually be possible to identify individuals who are at risk for schizophrenia so that preventive interventions can be provided. As time goes on, more of the high-risk children who have been the subjects of these investigations will pass through the adult risk period for schizophrenia. One can therefore anticipate that important new findings from high-risk research will be forthcoming.

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Elaine F. Walker

See also:

Abnormality: Biomedical Models; Abnormality: Family Models; Abnormality: Psychodynamic Models; Madness: Historical Concepts; Psychoactive Drug Therapy; Schizophrenia.

Seasonal Affective Disorder

Type of psychology: Psychopathology
Fields of study: Depression

Seasonal affective disorder is a variant of depression which has received significant research attention since the early 1980's. It may be related to premenstrual syndrome, carbohydrate-craving obesity, and bulimia. Seasonal affective disorder responds to a form of treatment known as phototherapy.

Principal terms

DOUBLE-BLIND STUDY: an experimental design in which neither the experimenter nor the subjects know which subjects are receiving the active treatment
HYPERSOMNIA: sleeping more than ten hours per day
LIBIDO: a person's sex drive
LUX: the amount of light emitted by one candle one meter away; 2,500 lux equals the light from 2,500 candles one meter away
PLACEBO: a treatment that is therapeutically inert

Causes and Symptoms

Seasonal affective disorder (SAD) became the focus of systematic scientific research in the early 1980's. Research originally focused on seasonal changes in mood that coincided with the onset of winter and became known as winter depression. Symptoms consistently identified by Norman Rosenthal and others as indicative of winter depression included hypersomnia, overeating, carbohydrate craving, and weight gain. Michael Garvey and others found the same primary symptoms and the following secondary ones: decreased libido, irritability, fatigue, anxiety, problems concentrating, and premenstrual sadness. Several researchers have found that winter depression is more of a problem at higher latitudes. Thomas Wehr and Norman Rosenthal report on a description of winter depression by Frederick Cook during an expedition to Antarctica in 1898. While winter depression is the form of seasonal affective disorder receiving the most initial attention, there is another variation that changes with the seasons.

Summer depression affects some people in the same way that winter depression affects others. Both are examples of seasonal affective disorder. According to Wehr and Rosenthal, symptoms of summer depression included agitation, loss of appetite, insomnia, and loss of weight. Many people with summer depressions also have histories of chronic anxiety. As can be seen, the person with a summer depression experiences symptoms which are almost the opposite of the primary symptoms of winter depression.

In order to diagnose a seasonal affective disorder, there must be evidence that the symptoms vary according to a seasonal pattern. If seasonality is not present, the

diagnosis of SAD cannot be made. The seasonal pattern for winter depression is for it to begin in November and continue unabated through March. Summer depression usually begins in May and continues through September. Siegfried Kasper and others reported that people suffering from winter depression outnumber those suffering from summer depression by 4.5 to 1. Wehr and Rosenthal reported that as people come out of their seasonal depression they experience feelings of euphoria, increased energy, less depression, hypomania, and possibly mania.

Philip Boyce and Gordon Parker investigated seasonal affective disorder in Australia. Their interest was in determining whether seasonal affective disorder occurs in the Southern Hemisphere and, if so, whether it manifests the same symptoms and temporal relationships with seasons as noted in the Northern Hemisphere. Their results confirmed the existence of seasonal affective disorder with an onset coinciding with winter and remission coinciding with summer. Their study also provided evidence that seasonal affective disorder occurs independently of important holidays and celebrations, such as Christmas. There is also a subsyndromal form of seasonal affective disorder. This is usually seen in winter depression and represents a milder form of the disorder. It interferes with the person's life, although to a lesser degree than the full syndrome, and it is responsive to the primary treatment of seasonal affective disorder.

Three hypotheses are being tested to explain seasonal affective disorder. The first is the melatonin hypothesis; the second is the circadian rhythm phase shift hypothesis; and the third is the circadian rhythm amplitude hypothesis.

The melatonin hypothesis is based upon animal studies and focuses on a chemical signal for darkness. Studies show that during darkness, the hormone melatonin is produced in greater quantities; during periods of light, it is produced in lesser quantities. Increases in melatonin level occur at the onset of seasonal affective disorder (winter depression) and are thought to be causally related to the development of the depression.

A second hypothesis is the circadian rhythm phase shift hypothesis. This hypothesis contends that the delay in the arrival of dawn disrupts the person's circadian rhythm by postponing it for a few hours. This disruption of the circadian rhythm is thought to be integral in the development of winter depression. Disruptions in the circadian rhythm are also related to secretion of melatonin.

Possible Symptoms of Seasonal Affective Disorder

- regularly occurring symptoms of depression (excessive eating and sleeping, weight gain) during the fall or winter months
- full remission from depression occur in the spring and summer months.
- symptoms have occurred in the past two years, with no nonseasonal depression episodes
- seasonal episodes substantially outnumber nonseasonal depression episodes
- a craving for sugary and/or starchy foods

The third hypothesis receiving much interest is the circadian rhythm amplitude hypothesis. A major tenet of this hypothesis is that the amplitude of the circadian rhythm is directly related to winter depression. Lower amplitudes are associated with depression, and higher ones with normal mood

states. The presence or absence of light has been an important determinant in the amplitude of circadian rhythms.

While each of these hypotheses has data to support it, the melatonin hypothesis is falling out of favor. Rosenthal and others administered to volunteers in a double-blind study a drug known to suppress melatonin secretion and a placebo. Despite melatonin suppression, there was no difference in the degree of depression experienced by the two groups (drug and placebo). Both the circadian rhythm phase shift hypothesis and the circadian rhythm amplitude hypothesis continue to have significant research interest and support.

Seasonal affective disorder was officially recognized in 1987 in the American Psychiatric Association's *Diagnostic and Statistical Manual of Mental Disorders*, (rev. 3d ed., DSM-III-R). It was included in the manual as a variant of major depression. In order to diagnose the seasonal variant, the depressed person had to experience the beginning and ending of the depression during sixty-day windows of time at the beginning and ending of the season and had to meet the criteria for the diagnosis of major depression. Additionally, that person had to have experienced more than three episodes of seasonal affective disorder, and two episodes had to have occurred consecutively. Finally, the ratio of 3 to 1 seasonal to nonseasonal episodes had to exist in the absence of any seasonally related psychosocial stressors (such as Christmas). Including the diagnosis in the DSM-III-R not only validated individuals who reported feeling better or worse at different times of year but also encouraged researchers to study the causes, variations, and treatments of this form of depression.

Philip Boyce and Gordon Parker, two Australian scientists, studied seasonal affective disorder in the Southern Hemisphere. Since the Southern Hemisphere has weather patterns reversed from those in the Northern Hemisphere, and since holidays occurring during the winter in the Northern Hemisphere occur during the summer in the Southern Hemisphere, these researchers were able to reproduce Northern Hemisphere studies systematically while eliminating the possible influence of holidays, such as Christmas. Their findings support those of their colleagues in the Northern Hemisphere. There is a dependable pattern of depression beginning during autumn and early winter and ending in the late spring and early summer.

It is important to study the prevalence of seasonal affective disorder in order to understand how many people are affected by it. Siegfried Kasper and others investigated the prevalence of seasonal affective disorder in Montgomery County, Maryland, a suburb of Washington, D.C. The results of their study suggested that between 4.3 percent and 10 percent of the general population is affected to some extent by seasonal affective disorder. Mary Blehar and Norman Rosenthal report data from research in New York City that between 4 percent and 6 percent of a clinical sample met the criteria for seasonal affective disorder. More significantly, between 31 percent and 50 percent of people responding to a survey reported changes to their life which were similar to those reported by seasonal affective disorder patients. There are strong indications that the overall prevalence rate for seasonal affective disorder is between 5 percent and 10 percent of the general

population. As much as 50 percent of the population may experience symptoms similar to but less intense than seasonal affective disorder patients.

Prevalence studies have found that the female-male ratio for seasonal affective disorder is approximately 4 to 1. The age of onset is about twenty-two. The primary symptoms of seasonal affective disorder overlap with other diagnoses which have a relatively high female-to-male ratio. For example, people diagnosed with winter depression frequently crave carbohydrate-loaded foods. In addition to carbohydrate-craving obesity, there is another serious disorder, bulimia nervosa, which involves binging on high-carbohydrate foods and has a depressive component. Bulimia nervosa is much more common in females than it is in males.

While most of the research has focused on seasonal affective disorder in adults, it has also been found in children. Children affected with seasonal affective disorder seem to experience a significant decrease in their energy level as their primary symptom rather than the symptoms seen in adults. This is not unusual; in many disorders, children and adults experience different symptoms.

The winter variant of seasonal affective disorder is much more common than the summer variant. It appears that winter depression is precipitated by the reduction in light that accompanies the onset of winter. As a result, it is also quite responsive to phototherapy. Summer depression, the summer variant of seasonal affective disorder, is precipitated by increases in humidity and temperature associated with the summer months. This suggests a different (and currently unknown) mechanism of action for the two variations of seasonal affective disorder.

Treatment and Therapy

The importance of light in the development and treatment of the winter variant of seasonal affective disorder has been demonstrated in a variety of studies worldwide. The general finding is that people living in the higher latitudes are increasingly susceptible to seasonal affective disorder in the winter.

While the mechanism of seasonal affective disorder is still unknown, an important rediscovery has been the use of light to treat it. Phototherapy has been found to be a very important and effective nonpharmacological treatment of the winter form of seasonal affective disorder. Studies have repeatedly shown that bright light, at least 2,500 lux, is more effective than dim light (300 lux). While most studies have compared 2,500-lux light to 300-lux light or other treatments, some researchers have investigated the effect of 10,000-lux light on seasonal affective disorder. Phototherapy treatments using 2,500-lux sources require between two and four hours per day of exposure to reap antidepressant benefits. When 10,000-lux sources of light are employed, the exposure time decreases to approximately thirty minutes a day. Certainly, most people suffering from seasonal affective disorder would prefer to take thirty minutes for their phototherapy treatments than the two to four hours required for 2,500-lux treatments.

Thomas Wehr and others investigated the differences in treatment efficacy when light was applied to the eyes rather than to the skin. They found that the antidepressant benefits were greater when the light was applied to the eyes. This suggests that the eye plays an important role in the effectiveness of phototherapy.

A study by Frederick Jacobsen and others investigated the timing of the phototherapy. This is important because if extending the duration of daylight were necessary for phototherapy to serve as an antidepressant, then the phototherapy must occur in the morning. Also, if phototherapy serves to change the timing of circadian rhythm, it must occur in the morning. The results of this study suggest that the antidepressant effect of phototherapy does not depend upon the timing of the treatment: Both morning and midday treatments were effective in lifting the depression of seasonal affective disorder.

One of the major advantages of phototherapy is that it is a nonpharmacologic approach to treating depression. The fact that no medications are involved allows the patient to avoid the unpleasant and potentially dangerous side effects of medications. Unfortunately, however, phototherapy also has a potentially dangerous side effect. Many researchers are concerned about the possible effect of ultraviolet light on the health of the patient.

Perspective and Prospects

The observation that seasons affect people's moods is not new. Hippocrates, writing in 400 B.C.E., noted in section 3 of his "Aphorisms" that, "Of natures (*temperaments?*), some are well- or ill-adapted for summer, and some for winter." What Hippocrates noticed (and many others since him have noticed) is that there are differences in the way people experience the various seasons. Summer and winter are the most extreme seasons in terms of both light and temperature and, not surprisingly, are the seasons in which most people have problems coping.

As noted above, a physician, Frederick Cook, on an expedition to Antarctica in 1898, noted that the crew experienced symptoms of depression as the days grew shorter. This same report (mentioned by Wehr and Rosenthal) revealed that "bright artificial lights relieve this to some extent." Emil Kraepelin reported in 1921 that approximately 5 percent of his patients with manic-depressive illness also had a seasonal pattern to their depressions. The data from antiquity to the present strongly favor the existence of a form of mood disturbance associated with seasonal variation. Just as the observation of seasonal variations in mood and behavior dates back to antiquity, so does the use of light as a treatment. Wehr and Rosenthal report that light was used as a treatment nearly two thousand years ago. Not only was light used but also it was specified that the light was to be directed to the eyes.

Seasonal affective disorder is a variant of major depressive disorder in the DSM-III-R. It seems to have some degree of relationship to carbohydrate-craving obesity, bulimia nervosa, bipolar disorder (formerly known as manic-depressive illness), and premenstrual syndrome. It affects women more often than men and is more frequently seen covarying with winter than with summer. The winter variant is probably caused by changes in light; it is more severe in the higher latitudes. The summer variant seems to be attributable to intolerance of heat and humidity and would be more prevalent in the lower latitudes. Most of the research both in the United States and internationally has focused on the winter variant and its relationship with light and latitude; there is much less research into the summer variant.

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animal models to study seasonal affective disorder. A good summary that avoids being overly technical.

James T. Trent

See also:

Abnormality: Biomedical Models; Depression; Manic-Depressive Disorder.

Sexual Dysfunction

Type of psychology: Psychopathology
Fields of study: Sexual disorders

Sexual dysfunction can occur in the desire, excitement, or orgasm phase of sexual responding: Desire disorders include hypoactive (inhibited) desire, sexual aversion, and excessive desire; problems related to excitement are female sexual arousal disorder and male erectile disorder; problems with orgasm include premature ejaculation and inhibited orgasm; dyspareunia and vaginismus are pain disorders.

Principal terms

DYSPAREUNIA: painful intercourse

ERECTILE DYSFUNCTION: recurrent and persistent inability to attain or maintain a firm erection of the penis despite adequate stimulation

FEMALE SEXUAL AROUSAL DISORDER: failure to obtain or maintain vaginal lubrication despite adequate stimulation

HYPOACTIVE SEXUAL DESIRE: lack of interest in sexual expression with anyone

PREMATURE EJACULATION: unintentional ejaculation before or shortly following insertion of the penis in the vagina

SENSATE FOCUS: a therapeutic exercise involving concentration on sensations produced by touching

SEXUAL AVERSION DISORDER: a dysfunction characterized by extreme fear and avoidance of genital contact with a partner

VAGINISMUS: involuntary spasms of the muscles of the other third of the vagina

Causes and Symptoms

In order to understand sexual dysfunction, it is necessary to examine the process of sexual response. William Masters and Virginia Johnson found that the basic sexual response cycle is the same in both men and women, including the excitement, plateau, orgasmic, and resolution phases. Excitement begins when the individual becomes aroused. Increased levels of sexual tension lead to the plateau phase and to orgasm. During resolution, there is a decrease in sexual tension and a return to an unstimulated state. In both genders, there are two basic physiological responses to sexual stimulation: myotonia (muscle tension) and vasocongestion (filling of blood vessels with blood).

Based on the physiological research of Masters and Johnson, Helen Kaplan proposed a framework that puts more emphasis on the subjective experience of sexual response, dividing it into the phases of desire, excitement, and orgasm. The categories of sexual dysfunction were described in the American Psychiatric Association's *Diagnostic and Statistical Manual of Mental Disorders* (rev. 3d ed., 1987, DSM-III-R) using these frameworks.

Problems with sexual desire include hypoactive sexual desire, sexual aversion,

In the 1930's Alfred Kinsey and colleagues began interviewing thousands of volunteers about their sexual behavior. (Library of Congress)

and excessive sexual desire. In cases of hypoactive sexual desire disorder, found in both genders, interest in sex and sexual fantasy are deficient or absent. The problem typically lasts for a given time period, rather than over a lifetime, and sometimes people experience it situationally—such as with a partner but not during masturbation. The second type of desire disorder, sexual aversion, occurs when there is a strong fear of sexual relations and a desire to avoid genital contact with a partner. An individual with sexual aversion may still engage in fantasy and masturbation. The sources of sexual desire disorders are not clear, but people who experience sexual aversion sometimes have been the victims of incest or rape. Also, low sexual desire has been associated with depression, fear of loss of control, fear of pregnancy, marital conflict, and lack of attraction to one's partner. Excessive sexual desire involves a preoccupation with sexuality and the use of sexual activity to reduce tension resulting from pervasive thoughts about sex.

A second category of dysfunction involves the excitement phase. Some people feel sexual desire but are unable to participate in intercourse because of a lack of physiological arousal. It is often situational and in women is characterized by a lack of vaginal lubrication, which can result from biological factors such as low estrogen levels or from psychological factors, including apathy or fear. Equivalent to vaginal lubrication in women is the engorgement and erection of the penis in men. Commonly used terms to describe sexual arousal disorders are "frigidity" in women and "impotence" in men, although researchers now consider them to be derogatory. Instead, the preferred term for women is "female sexual arousal disorder," and the preferred term for men is "erectile dysfunction."

Lifelong erectile dysfunction is characterized by the inability to maintain penetration with a partner at any point throughout life, although the person may experience nighttime erections and erections during masturbation. In comparison, nonlifelong erectile inhibition is applied to the man who previously had erections with a partner but is presently unable to experience them. Masters and Johnson think that the label of nonlifelong erectile dysfunction is appropriate when a man is unable to experience an erection in at least one-quarter of his sexual encounters. Erectile problems are frequently caused by a combination of biological and psychological factors. Low levels of testosterone, the use of certain drugs, and disorders that restrict penile blood flow are biological causes. Fatigue, worry, and relationship difficulties are typical psychological problems. Erectile dysfunction is the most common complaint of men who seek sex therapy.

Difficulties of orgasmic response occur in both genders. Women with inhibited orgasm may look forward to sex, experience excitement and lubrication, and enjoy sexual contacts, but they do not reach orgasm. There is an involuntary inhibition of the orgasmic reflex. Difficulty with orgasm is one of the most common sexual complaints among women. Inhibited orgasm is rarely the result of physiological causes. Relatively nonorgasmic women tend to have more negative attitudes toward masturbation, greater guilt feelings about sex, and problems communicating with a partner about the need for stimulation of the clitoris. In comparison, inhibited male orgasm refers to the inability of a man to have an orgasm by ejaculating during intercourse. It is seldom encountered by therapists; it may result

from sex guilt, fear of impregnating someone, or dislike for a partner. Another orgasm-related problem for males is premature ejaculation. The preferred definition of premature ejaculation is consistently reaching orgasm so quickly that it greatly reduces a man's own enjoyment of the experience, impairs a partner's satisfaction, or both.

Finally, although men and women both can experience pain involving intercourse, pain is more commonly found in women. Dyspareunia is the technical term. Pain is commonly a result of lack of lubrication because of insufficient arousal or hormone levels. Vaginal infections can also lead to pain; contraceptive substances can also irritate the vagina. Pain at the opening may result from an intact hymen, whereas pain deep in the pelvis during thrusting may be caused by jarring of the ovaries. Another source of deep pain is endometriosis, a condition in which uterine tissue implants on various places in the abdominal cavity. An uncommon type of pain in women is vaginismus, characterized by strong, involuntary contractions of the outer third of the vagina.

Treatment and Therapy

There are several commonly used techniques for treating sexual dysfunction. As necessary, some address the issue of marital conflict and attempt to resolve it. Other techniques focus on individual psychological difficulties in one partner or the other. Sometimes it is necessary to help a couple develop communication skills. Other times, sexual difficulties are rooted in a lack of knowledge, so information and instruction are provided.

One popular technique is systematic desensitization. It involves learning muscle relaxation exercises. A set of scenes that produce anxiety are constructed by the therapist together with the client. The scenes are arranged from least to most anxiety-producing. The goal is to replace the response of anxiety with the response of relaxation. Therapy begins with the client imagining the least anxiety-producing scenes. If anxiety occurs, the client is told to give up the image of the scene and to use the relaxation exercises. The exercise is repeated until the client no longer feels anxiety associated with that scene. Then the next scene is imagined by the client, and so on. The process generally takes from five to fifteen sessions.

Another technique is that of nondemand pleasuring together with sensate focus. To use the exercises of nondemand pleasuring and sensate focus, the couple would be asked to refrain from sexual contacts of any kind until instructed to do so by the therapist. During treatment, the couple would get take-home assignments that gradually increase sexual contact from the point of hugging and kissing to being able eventually to have sexual intercourse. The partners would be assigned to alternate in the roles of giver and receiver. Playing the role of giver would be to explore and touch the receiver's body. The giver would not attempt to arouse the receiver in a sexual manner. To use the sensate focus exercise, the receiver would concentrate on the feelings that come about as a result of the touch of the giver. The receiver would be instructed to prevent or end any kind of stimulation that was uncomfortable or unpleasant by informing the partner to that effect. The next step involves a progression to breast and genital touching while continuing to avoid

stimulation that is orgasm-oriented. After the couple attains a satisfactory level of arousal by means of nondemand pleasuring and sensate focus, they engage in nondemand sexual intercourse.

The most effective type of therapy for women who have inhibited orgasm is that of masturbation training. Research indicates that masturbation is the technique that is most likely to produce orgasm in women. If there are negative attitudes toward masturbation, the therapist must first work on those feelings. During the systematic course of masturbation training, the woman is instructed to explore her genitals by touch while in the privacy of her home. Once she becomes comfortable with the exploration, she tries to find the most pleasurable, sensitive area. At another time, she increases the intensity and duration of her self-stimulation and includes fantasy. If the woman has still not had an orgasm, she is often instructed to use a vibrator. Once the woman begins having orgasms, her partner is integrated into her sexual experience.

A common approach for premature ejaculation that was developed by Masters and Johnson is the squeeze technique. During stimulation, when the man signals that he is about to ejaculate, the partner applies a strong pressure directly below the head of the penis, or at the base of the penis, with her hand. The pressure is applied for three to five seconds and ends with a sudden release of the hand. After the sensation of ejaculation goes away, in about twenty to thirty seconds, she begins to stimulate her partner once again. The process is done three or four times per session. Then ejaculation is allowed. Initially, the process is conducted outside the vagina. With increasing practice and greater control, the couple proceeds to have intercourse, but they employ the squeeze technique with the hand as often as needed.

Whatever the source of a person's inability to respond sexually as he or she wishes, the problem can worsen if a fear of failure develops. The fear can lead to self-fulfilling behavior. One element of therapy is the need to identify and eliminate the fear of failure and sexual inadequacy, along with reducing maladaptive thoughts that have a tendency to occur during sexual intimacy. Other useful suggestions for people with problems are to refrain from setting goals of sexual performance and to avoid behaving as a spectator, or monitor, during sex. While involved in monitoring one's own performance, it is difficult to enjoy sexual experiences. It is also useful to understand that failures will occur in any sexual relationship. What is important is the way that an individual or a couple deals with the failures, rather than letting occasional failures ruin a relationship.

Perspective and Prospects

Scientific explanations became the dominant interpretations of human behavior as religious explanations of behavior declined prior to 1990. By the beginning of the twentieth century, scientists were still unable to accept the scientific study of sexual behavior, however; there were many myths concerning sexuality, and the prevalent attitude was that all sexual acts that did not have reproduction as their goal were deviant. For example, the act of masturbation was seen, even by some scientists, as the cause for a variety of human ailments, including insanity, poor eyesight, and digestive problems.

Most of the early knowledge of sexual behavior was based on observations of animals or people in non-Western cultures. The person who was central in the emergence of the modern study of sexuality was Havelock Ellis. He published a number of influential volumes on sexual issues in the early 1900's. Also influential in the study of sexuality was Sigmund Freud, who devised a broad theory of behavior that emphasized sex as the central part of human development. In the mid-1930's, Alfred Kinsey and his colleagues began interviewing thousands of volunteers about their sexual behavior. The findings provided beneficial information and paved the way for other researchers, including Masters and Johnson. Instead of interviewing people about their sexuality, Masters and Johnson directly observed volunteers in the laboratory through one-way glass as the volunteers masturbated and had intercourse. They were the first scientists to study sexual behavior through systematic observation in the laboratory, resulting in a model of the human sexual-response cycle. Before the work of Masters and Johnson, it was believed that men and women were different in their sexual responses. Instead, it was found that men and women have very similar responses.

Once therapists became aware of the sexual functioning of the body, they were able to treat sexual dysfunction by new behavioral means, rather than relying on time-consuming, expensive psychotherapy. Psychotherapy involves a restructuring of the entire personality and is based on the Freudian theory that sexual difficulties are symptoms of emotional conflict originating in childhood. Instead, the therapeutic approaches that grew out of the scientific knowledge about the sexual response cycle were more direct, more effective, and less time-consuming. In conclusion, the scientific study of sex provided information that has helped reduce the amount of ignorance about sexuality. Ignorance is a common underlying cause of sexual dysfunction in general.

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See also:

Abnormality: Psychodynamic Models; Couples Therapy; Sexual Variants and Paraphilias.

Sexual Variants and Paraphilias

Type of psychology: Psychopathology
Fields of study: Sexual disorders

Sexual variations, or paraphilias, are unusual sexual activities, in that they deviate from what is considered normal at a particular time in a particular society; paraphilias include behaviors such as exhibitionism, voyeurism, and sadomasochism. It is when they become the prime means of gratification, displacing direct sexual contact with a consenting adult partner, that paraphilias are technically present.

Principal terms

EXHIBITIONISM: a behavior in which a person, who is usually a male, exposes the genitals to an involuntary observer

FETISHISM: a sexual behavior in which a person becomes aroused by focusing on an inanimate object or a part of the human body

FROTTEURISM: pressing or rubbing against a stranger in a public place for sexual gratification

SEXUAL MASOCHISM: the experiencing of sexual arousal by suffering physical or psychological pain

SEXUAL SADISM: the intentional infliction of pain on another person for sexual excitement

TRANSVESTISM: a behavior in which a person obtains sexual excitement from wearing clothing of the opposite gender

VOYEURISM: the derivation of sexual pleasure from looking at the naked bodies or sexual activities of others without their consent

ZOOPHILIA: sexual contact between humans and animals

Causes and Symptoms

Paraphilias are sexual behaviors that are considered a problem for the person who performs them and/or a problem for society because they differ from the society's norms. Psychologist John Money, who has studied sexual attitudes and behaviors extensively, claims to have identified about forty such behaviors.

Exhibitionism is commonly called "indecent exposure." The term refers to behavior in which an individual, usually a male, exposes the genitals to an involuntary observer, who is usually a female. The key point is that exhibitionistic behavior involves observers who are unwilling. After exposing, the exhibitionist often masturbates while fantasizing about the observer's reaction. Exhibitionists tend to be most aroused by shock and typically flee if the observer responds by laughing or attempts to approach the exhibitionist. Most people who exhibit themselves are males in their twenties or thirties. They tend to be shy, unassertive

people who feel inadequate and afraid of being rejected by another person. People who make obscene telephone calls have similar characteristics to the people who engage in exhibitionism. Typically, they are sexually aroused when their victims react in a shocked manner. Many masturbate during or immediately after placing an obscene call.

Voyeurism is the derivation of sexual pleasure through the repetitive seeking of situations in which to look, or "peep," at unsuspecting people who are naked, undressing, or engaged in sexual intercourse. Most masturbate during the voyeuristic activity or immediately afterward in response to what they have seen. Further sexual contact with the unsuspecting stranger is rarely sought. Like exhibitionists, voyeurs are usually not physically dangerous. To a degree, voyeurism is socially acceptable, but it becomes atypical when the voyeuristic behavior is preferred to sexual relations with another person or when there is a high degree of risk. Most voyeurs are not attracted to nude beaches or other places where it is acceptable to look because they are most aroused when the risk of being discovered is high. Voyeurs tend to be men in their twenties with strong feelings of inadequacy.

Sadomasochistic behavior encompasses both sadism and masochism; it is often abbreviated "SM." The dynamics of the two behaviors are similar. It is thought that sadists are less common than masochists. Sadomasochistic behaviors have the potential to be physically dangerous, but most people involved in these behaviors participate in mild or symbolic acts with a partner they can trust. Most people who engage in SM activities are motivated by a desire for dominance or submission rather than pain. Interestingly, many nonhuman animals participate in pain-inflicting behavior before coitus. Some researchers think that the activity heightens the biological components of sexual arousal, such as blood pressure and muscle tension. It has been suggested that any resistance between partners enhances sex, and SM is a more extreme version of this behavior. It is also thought that SM offers people the temporary opportunity to take on roles that are the opposite of the controlled, restrictive roles they play in everyday life. The term "sadism" is derived from the Marquis de Sade, a French writer and army officer who was horribly cruel to people for his own erotic purposes. In masochism, sexual excitement is produced in a person by his or her own suffering. Preferred means of achieving gratification include verbal humiliation and being bound or whipped.

Fetishism is a type of sexual behavior in which a person becomes sexually aroused by focusing on an inanimate object or part of the human body. Many people are aroused by looking at undergarments, legs, or breasts, and it is often difficult to distinguish between normal activities and fetishistic ones. It is when a person becomes focused on the objects or body parts ("fetishes") to the exclusion of everything else that the term is most applicable. Fetishists are usually males. Common fetish objects include women's lingerie, high-heeled shoes, boots, stockings, leather, silk, and rubber goods. Common body parts involved in fetishism are hair, buttocks, breasts, and feet.

The term "pedophilia" is from the Greek language and means "love of children." It is characterized by a preference for sexual activity with children and is engaged in primarily by men. The activity varies in intensity and ranges from stroking the

child's hair to holding the child while secretly masturbating, manipulating the child's genitals, encouraging the child to manipulate his or her own genitals, or, sometimes, engaging in sexual intercourse. Generally, the pedophile, or sexual abuser of children, is related to, or an acquaintance of, the child, rather than a stranger. Studies of imprisoned pedophiles have found that the men typically had poor relationships with their parents, drink heavily, show poor sexual adjustment, and were themselves sexually abused as children. Pedophiles tend to be older than people convicted of other sex offenses. The average age at first conviction is thirty-five.

Transvestism refers to dressing in clothing of the opposite sex to obtain sexual excitement. In the majority of cases, it is men who are attracted to transvestism. Several studies show that cross-dressing occurs primarily among married heterosexuals. The man usually achieves sexual satisfaction simply by putting on the clothing, but sometimes masturbation and intercourse are engaged in while the clothing is being worn.

Zoophilia involves sexual contact between humans and animals as the repeatedly preferred method of achieving sexual excitement. In this disorder, the animal is preferred despite other available sexual outlets. Necrophilia is a rare dysfunction in which a person obtains sexual gratification by looking at or having intercourse with a corpse. Frotteurism is a fairly common behavior involving a person, usually a male, who obtains sexual pleasure by pressing or rubbing against a fully clothed female in a crowded public place. Often it involves the clothed penis rubbing against the woman's buttocks or legs and appears accidental.

Treatment and Therapy

A problem in the definition and diagnosis of sexual variations is that it is difficult to draw the line between normal and abnormal behavior. Patterns of sexual behavior differ widely across history and within different cultures and communities. It is impossible to lay down the rules of normality; however, attempts are made in order to understand behavior that differs from the majority and in order to help people who find their own atypical behavior to be problematic, or to be problematic in the eyes of the law.

Unlike most therapeutic techniques in use by psychologists, many of the treatments for paraphilias are painful, and the degree of their effectiveness is questionable. Supposedly, the methods are not aimed at punishing the individual, but perhaps society's lack of tolerance toward sexual deviations can be seen in the nature of the available treatments. In general, all attempts to treat the paraphilias have been hindered by the lack of information available about them and their causes.

Traditional counseling and psychotherapy alone have not been very effective in the treatment of modifying the behavior of paraphiliacs, and it is unclear why the clients are resistant to treatment. Some researchers believe that the behavior might be important for the mental stability of paraphiliacs. If they did not have the paraphilia, they would experience mental deterioration. Another idea is that, although people are punished by society for being sexually deviant, they are also

rewarded for it. For the paraphilias that put the person at risk for arrest, the danger of arrest often becomes as arousing and rewarding as the sexual activity itself. Difficulties in treating paraphiliacs may also be related to the emotionally impoverished environments that many of them experienced throughout childhood and adolescence. Convicted sex offenders report more physical and sexual abuse as children than do the people convicted of nonsexual crimes. It is difficult to undo the years of learning involved.

Surgical castration for therapeutic purposes involves removal of the testicles. Surgical castration for sexual offenders in North America is very uncommon, but the procedure is sometimes used in northern European countries. The reason castration is used as a treatment for sex offenders is the inaccurate belief that testosterone is necessary for sexual behavior. The hormone testosterone is produced by the testicles. Unfortunately, reducing the amount of testosterone in the blood system does not always change sexual behavior. Furthermore, contrary to the myth that a sex offender has an abnormally high sex drive, many sex offenders have a low sex drive or are sexually dysfunctional.

In the same vein as surgical castration, other treatments use the administration of chemicals to decrease desire in sex offenders without the removal of genitalia. Estrogens have been fairly effective in reducing the sex drive, but they sometimes make the male appear feminine by increasing breast size and stimulating other female characteristics. There are also drugs that block the action of testosterone and other androgens but do not feminize the body; these drugs are called antiandrogens. Used together with counseling, antiandrogens do benefit some sex offenders, especially those who are highly motivated to overcome the problem. More research on the effects of chemicals on sexual behavior is needed; the extent of the possible side effects, for example, needs further study.

Aversion therapy is another technique that has been used to eliminate inappropriate sexual arousal. In aversion therapy, the behavior that is to be decreased or eliminated is paired with an aversive, or unpleasant, experience. Most approaches use pictures of the object or situation that is problematic. Then the pictures are paired with something extremely unpleasant, such as an electric shock or a putrid smell, thereby reducing arousal to the problematic object or situation in the future. Aversion therapy has been found to be fairly effective but is under ethical questioning because of its drastic nature. For example, chemical aversion therapy involves the administration of a nausea- or vomit-inducing drug. Electrical aversion therapy involves the use of electric shock. An example of the use of electric shock would be to show a pedophile pictures of young children whom he finds sexually arousing and to give an electric shock immediately after showing the pictures, in an attempt to reverse the pedophile's tendency to be sexually aroused by children.

Other techniques have been developed to help clients learn more socially approved patterns of sexual interaction skills. In general, there has not been a rigorous testing of any of the techniques mentioned. Furthermore, most therapy is conducted while the offenders are imprisoned, providing a less than ideal setting.

Perspective and Prospects

Beliefs regularly change with respect to what sexual activities are considered normal, so most therapists prefer to avoid terms such as "perversion," instead using "paraphilia." Basically, "paraphilia" means "love of the unusual." Aspects of paraphilias are commonly found within the scope of normal behavior; it is when they become the prime means of gratification, replacing direct sexual contact with a consenting adult partner, that paraphilias are technically said to exist. People who show atypical sexual patterns might also have emotional problems, but it is thought that most people who participate in paraphilias also participate in normal sexual behavior with adult partners, without complete reliance on paraphilic behaviors to produce sexual excitement. Many people who are arrested for paraphilic behaviors do not resort to the paraphilia because they lack a socially acceptable sex partner. Instead, they have an unusual opportunity, a desire to experiment, or perhaps an underlying psychological problem.

According to the approach of Kurt Freund and his colleagues, some paraphilias are better understood as disturbances in the sequence of courtship behaviors. Freund has described courtship as a sequence of four steps: location and appraisal of a potential partner; interaction that does not involve touch; interaction that does involve touch; and genital contact. Most people engage in behavior that is appropriate for each of these steps, but some do not. The ones who do not can be seen as having exaggerations or distortions in one or more of the steps. For example, Freund says that voyeurism is a disorder in the first step of courtship. The voyeur does not use an acceptable means to locate a potential partner. An exhibitionist and an obscene phone caller would have a problem with the second step: They have interaction with people that occurs before the stage of touch, but the talking and showing of exhibitionistic behaviors are not the normal courtship procedures. Frotteurism would be a disruption at the third step, because there is physical touching that is inappropriate. Finally, rape would be a deviation from the appropriate fourth step.

As a result of social and legal restrictions, reliable data on the frequency of paraphilic behaviors are limited. Most information about paraphilias comes from people who have been arrested or are in therapy. Because the majority of people who participate in paraphilias do not fall into these two categories, it is not possible to talk about the majority of paraphiliacs in the real world. It is known, however, that males are much more likely to engage in paraphilias than are females.

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See also:

Abnormality; Child Abuse; Cognitive Behavior Therapy.

Sibling Rivalry

Type of psychology: Developmental psychology
Fields of study: Adolescence; attitudes and behavior; infancy and childhood; interpersonal relations

A common form of competition between brothers, sisters, or a brother and sister that is considered normal if it is outgrown and/or does not become destructive to individuals or the family.

Principal terms

DEVELOPMENTAL MILESTONES: the specific achievements accomplished in the normal development of a child (such as motor, cognitive, self-help, social, and communication skills); a child's developmental level affects the expression of sibling rivalry

EXTENDED FAMILY: a type of family that goes beyond the traditional model of parents and children to include other generations or more distant relatives

FAMILY CONSTELLATION VARIABLES: the collection of characteristics that describe the makeup of an individual family, including number of family members, ages, birth order of siblings, gender, and inclusion of any extended family members

INTERPERSONAL SKILLS: the social and communication skills that begin developing in childhood; sibling relationships significantly influence the development of these skills

SIBLING: a general term for brothers and sisters who share the same set of parents; siblings that share only one parent are called half sisters or half brothers

STEPSIBLINGS: siblings who have no relation through biology or adoption except that a parent of one is married to the parent of the other; varied family forms complicate further the traditional rivalry between siblings

Causes and Symptoms

Sibling rivalry is the competition or jealousy that develops between siblings for the love, affection, and attention of either one or both parents. The concept of sibling rivalry has been discussed for centuries, and it is considered a universal phenomenon in families. Although sibling rivalry is generally described in terms of its negative aspects, healthy competition between brothers and sisters can be useful in the individual development of necessary social, communication, and cognitive skills.

While the dynamics of the ways in which brothers and sisters relate to one another cannot be reduced to specifics of age, birth order, gender, and family size, these family constellation variables are important in the development of sibling rivalry. While each element will be discussed separately, it is important to take into account all the relevant factors when looking at causes of sibling rivalry.

The ages of siblings and their birth order are significant factors that have been related to sibling competition. There are many stereotypes associated with being

the oldest, youngest, and middle child in the family. For example, typical firstborn children tend to be highly organized and responsible, while youngest children are likely to benefit from more experienced, relaxed parenting and may be more affectionate and spontaneous. Middle children are often more difficult to characterize. They may be at more risk than other children for receiving less attention, and they tend to develop stronger relationships outside the family. Using these stereotypical characteristics as guides for assessing a particular child, it is possible to speculate on the relevance of birth order and age in the development of sibling competition.

The effects of spacing between children has also given rise to a number of theories. It is generally accepted that the closer siblings are in age, the more similar their life experiences are likely to be. As they may have more in common, siblings close in age are also more likely to struggle with each other more frequently. For this reason, siblings who are close in age may engage in more competition with each other than siblings who are separated by more than a few years.

The gender of siblings is also a variable in the development of sibling relationships, including sibling competition. Siblings help each other discover some of the basic characteristics of male and female roles. Growing up with all brothers or all sisters can teach a child much about dealing with one gender. Having a sibling of the opposite sex can offer a child valuable initial information about the opposite sex. The attitudes of parents regarding gender roles also influence the relationships between siblings. Parents who display favoritism toward children based on gender may contribute to sibling jealousy and competition.

For a wide variety of reasons, specific children may be more emotionally vulnerable to feelings of jealousy than their siblings at a given time. For example, in a family with a child who has a disability, other siblings may feel that they do not receive as much attention or the child with special needs may feel different and unwanted.

Emotionally vulnerable children are frequently found in families experiencing high levels of stress. There is evidence that the emotional climate within the family is directly linked to the quality of sibling relationships. It then follows that sibling rivalry may be more problematic in families where there are stressors such as marital conflict, chronically ill family members, or unwanted extended family involvement.

The competition that emerges between siblings can be for material resources such as toys or space within the household. For example, it is not uncommon for an older child to resent having to share a room with a younger brother or sister. Frequently, the competition for material resources stems from a child's uncertainty regarding his or her status in the family. Children may interpret the need to share space as an indication of their lesser importance to parents.

Jealousy can develop when a child perceives favoritism on the part of a parent. This jealousy results from a lack of equality in treatment. Not only is the less-favored child at risk for feeling jealous, but the parental favorite often does not perceive the extra attention as pleasant or comfortable. The challenge in parenting is trying to achieve equality when children are each exceptional beings with their

own individual needs. In her book, *Dr. Mom's Parenting Guide* (1991), Marianne Neifert recommends loving children "uniquely," giving each child the message that his or her place in the family is a special one. A parent who consistently favors one child over another through the amount of love and attention shown is encouraging unhealthy rivalry between the children.

Sibling rivalry can manifest itself in a variety of ways. When a new sibling is born, an older child may be either openly or passively hostile to the new baby. This hostility can be displayed in the form of direct verbal or physical attacks on the baby. Sometimes children request that parents return the infant to the hospital or give it away. In other cases, a child may act up or demand attention when the parent is busy with the infant. Serious abuse by siblings is rare, but even mild incidents need attention by parents.

Some children react to a new sibling by displaying regressive behavior such as bed-wetting, asking to be carried, thumb-sucking, excessive crying, or talking baby talk. Other negative behaviors associated with sibling jealousy are lying, aggressiveness, or destructive behaviors. It is also typical for the child to vent frustration or anger on other individuals, pets, or toys when feeling jealous of a sibling. In older children, sibling rivalry may be exhibited by taking the younger child's toys or demanding more parental attention. Another example of rivalry in older children includes a drive to outperform the other sibling in academic or athletic settings.

Unless managed effectively by parents, feelings of jealousy and competition among siblings can undermine a child's development and may continue into adult relationships. Sibling rivalry can be minimized by the active involvement of parents in setting appropriate rules for dealing with conflicts.

Treatment and Therapy

The negative impact of sibling rivalry can be minimized through parental education and attention to the conditions that intensify sibling competition. Attending to the development of a relationship between siblings is an ongoing process which parents can enhance through their involvement in helping children develop good interpersonal skills.

The foundation for dealing effectively with sibling rivalry is an awareness and understanding that sibling competition is a normal, healthy part of family life. Rivalry develops between siblings in nearly every family, and it only becomes problematic when taken to extremes or when ignored and allowed to escalate.

The common behavior problems associated with sibling rivalry occur in the context of many interacting factors: parental expectations; the child's developmental level; the temperament of a particular child; parental discipline; family constellation characteristics such as age, gender, and spacing of children; and the presence of extended family members. There is growing evidence regarding the importance of obtaining assessments and information from family members (including extended family) and other sources such as school or day care personnel when identifying a problem of sibling rivalry.

One of the situations in which parents express the most open concern regarding sibling rivalry is when a new baby is expected or an adoption of a child is imminent.

When a new sibling is expected, the other children can be invited to be actively involved in the preparation. Age-appropriate discussions with each child about pregnancy or adoption are good preventive measures. Parents should be available to answer questions regarding the changes to be expected with the arrival of the additional child. An open, direct discussion with older children can minimize the adjustment difficulties and address initial concerns. Children need regular verbal and demonstrated assurances that they will continue to be loved following the arrival of a new sibling.

Parents can involve an older child in the care of a baby as a means of acknowledging the unique contributions of that child. Expecting an older child to be a regular caretaker, however, may create additional problems and place unnecessary stress on the older brother or sister.

While some older children exhibit negative behaviors associated with the arrival of a baby, others respond positively by becoming more mature and autonomous. Focusing on the individual contributions of an older sibling can minimize the feelings of jealousy when a new child enters the family.

Parents should avoid making either overt or subtle comparisons between siblings and instead focus on the special qualities and achievements of each child. As Neifert suggests, "honor the individual in every child." This is sometimes difficult to accomplish, as many times parents anticipate that subsequent children will be similar to their firstborn. For example, if a first child is successful in sports, a parent may anticipate that the younger sibling will also be athletically inclined. Such unrealistic expectations can foster unhealthy competition and put needless pressure on a younger sibling.

Jealousy between brothers and sisters seldom ends with the adjustment of a new family member and the acknowledgement that an "only" child now has to share parental attention. Balancing the emotional needs of two or more children of differing ages continues to be an important concern of parents as children move through different developmental stages.

The negative behaviors associated with sibling rivalry can stem from other sources as well. Sometimes siblings fight because they are bored or have few appropriate alternatives to taunting a sibling. Sometimes the behavior can be a reaction to stressors outside of the home, such as problems at school or socialization difficulties. A parent's reaction to negative behavior will have a large impact on whether the behavior continues. Parents who can model effective interpersonal skills themselves are likely to influence the development of these same skills in their children.

When jealous behaviors are displayed by siblings, parents need to be sensitive to the source of the feelings. The cause of the competition or rivalry should be the focus of parental interventions, rather than the negative behavior itself. Children should be encouraged to talk about their feelings openly, and parents need to be willing to acknowledge and validate those feelings for each child. After allowing children to express their feelings and showing appreciation for the difficulty of the problem, parents can encourage siblings to work toward a mutual resolution.

One of the common manifestations of sibling rivalry is the expression of anger

and, sometimes, the physical or verbal abuse that accompanies the anger. While common, violent displays of anger are not appropriate. Helping children learn to handle anger responsibly is an important task for parents.

In handling fighting between children, parents must assess the level of conflict and intervene appropriately when necessary. Normal bickering between siblings that does not include verbal abuse or threats of physical abuse rarely requires parental involvement. If the situation worsens, however, the following steps can be useful for parents: Acknowledge the angry feelings of each child, then reflect each child's point of view; describe the problem from the position of a respectful bystander, without taking sides on the issue; and express confidence that the children can come up with a reasonable solution.

Parents need to be actively involved in promoting a system of justice within the family which includes age-appropriate rules and consequences for behavior. Examples of ways that parents can manage the behavior are separating siblings when a situation appears dangerous and redirecting children's activities when aggression is likely to occur. Parents can also take responsibility for encouraging and rewarding cooperative play and providing children with appropriate, nonaggressive models for resolving conflict.

Teaching children conflict resolution strategies is an important way for parents to intervene in sibling rivalry problems. Developing the ability to express one's feelings is a valuable step toward conflict resolution. Children should be encouraged to put their feelings into words in appropriate ways. Young children may need help in doing so through the use of statements such as, "You don't like it when I spend so much time caring for your baby sister, do you?" Granting a child permission to fantasize about a given situation may also help in diffusing angry feelings. Encouraging children to verbalize what they wish would happen allows them to address emotions in an honest way. Children should be taught from an early age to develop creative ways to vent their anger. Children can be taught to use physical exercise, write feelings in a journal, or go to their rooms to cool down as appropriate ways to manage anger.

Managing sibling conflict is complex in any family, but even more so in situations where there is a single parent or a blending of families through divorce and remarriage. Because sibling competition stems from a child's anxiety about sharing parental attention, the presence of a single parent can intensify the feelings of insecurity about one's position in the family. Single parents need to be careful not to turn a child into a spouse substitute, instead viewing each child as a unique individual who deserves to be able to mature at his or her own pace. Extended family members, including grandparents, aunts, and uncles, may be useful in helping a single parent meet the individual needs of each child in the family.

When parents remarry, children are required to make adjustments in their relationships and to include new people into their family. Children need to be allowed to express their ambivalent feelings regarding stepsiblings and half siblings, as these feelings are a normal part of this adjustment process. Parents need to accept and tolerate each child's feelings, as long as guidelines of justice and safety are recognized.

Despite the abundant research available on the topic of sibling rivalry, there is still much that is unknown regarding the complex relationships between brothers and sisters. While it is possible to look at generalizations regarding the issues important in sibling rivalry, it is not possible to predict adjustment or maladjustment in a particular child. Information must be gathered from a number of sources and evaluated for each child when planning a course of action to address concerns about sibling rivalry.

Perspective and Prospects

Through the ages, people have assumed that jealousy and rivalry were unavoidable characteristics of sibling relationships. Sibling rivalry has been a common theme in several classic stories. In the Bible, the competition between brothers Cain and Abel and the jealousy which developed between Joseph and his brothers over issues of parental favoritism are but two accounts of sibling rivalry. Such accounts support the assertion that jealousy among siblings is a common phenomenon.

Sigmund Freud's theory of socialization was one of the first to address the concept of sibling rivalry from a scientific perspective. According to Freud, sibling rivalry, with its struggles and controversy, is inherent in all brother-and-sister relationships. Much of what Freud hypothesized regarding sibling competition was grounded in a personal understanding of his own relationships with his siblings. Freud was the oldest child in a family which included five younger sisters and a younger brother.

Competition for parental attention was a dominant theme in Freud's description of the sibling relationship. He emphasized the negative emotions associated with sibling relationships and concluded that, although these feelings diminished as children matured, the rivalry persisted into adulthood. Few of his remarks about sibling relationships addressed gender differences, as Freud described relationships from his own perspective as a male.

Another theorist who addressed the issue of sibling relationships was Walter Toman. In 1961, Toman published the book *Family Constellation: Its Effects on Personality and Social Behavior*. He suggested that birth order, gender, and spacing were significant factors in the development of personality and strongly influenced the nature of personal relationships both within and outside the family of origin. Toman detailed eight sibling positions, such as oldest brother of brothers, youngest sister of brothers, and so on. While the generalizations presented in Toman's work have significance as a basis of comparison, there are too many intervening variables and complexities in family life to use birth order theories as complete explanations for sibling relationships and family roles. Birth order, gender, and spacing are several of the many significant factors that shape the connections between siblings.

Sibling relationships play an important role in each child's development. Since the works of Freud and Toman were published, researchers have expanded their studies of sibling rivalry to include the broader context of the family. There is growing evidence that the emotional climate of the family is directly related to the quality of the relationship of siblings. The parental relationship, factors of vulner-

ability in specific children, parental expectations, and family constellation variables each contribute to the development and intensity of sibling rivalry between brothers and sisters in a given family.

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See also:

Anxiety Disorders; Bed-Wetting; Behavioral Family Therapy; Child Abuse; Child and Adolescent Psychiatry; Divorce and Separation: Children's Issues; Domestic Violence; Jealousy; Psychotherapy: Children; Stress.

Sleep Apnea Syndromes and Narcolepsy

Type of psychology: Consciousness
Fields of study: Sleep

Sleep apnea syndromes are a class of sleep disorders which result in repeated pauses in breathing during the night and cause repeated interruptions of the sleep cycle. Sleep apnea may be caused by physical obstruction of the upper airway or by neurological difficulties. Narcolepsy, another sleep disorder, is characterized by excessive daytime sleepiness, cataplexy, sleep paralysis, hypnagogic hallucinations, and irregular manifestations of REM sleep. The disorder is lifelong, and its origin is unknown.

Principal terms

APNEA: the cessation of breathing
CATAPLEXY: a brief, sudden episode of muscle weakness or paralysis; in narcoleptic patients, usually triggered by emotion
ELECTROENCEPHALOGRAPHY: a technique used to measure electrical (brain-wave) activity through the scalp
HYPNAGOGIC HALLUCINATIONS: vivid auditory or visual hallucinations which occur at the transition from wakefulness to sleep, or from sleep to wakefulness
INSOMNIA: a complaint of poor, insufficient, or nonrefreshing sleep
RAPID EYE MOVEMENT (REM) SLEEP: a type or stage of sleep characterized by rapid eye movements, vivid dreaming, and lack of skeletal muscle tone

Causes and Symptoms

Sleep apnea syndromes include a variety of conditions, all of which result in the temporary cessation of breathing during sleep. Sleep apnea may affect people of all ages, but it is more common among elderly patients. Individuals with sleep apnea do not necessarily have breathing difficulty while awake, and while many people who do not have apnea experience pauses in breathing during sleep, sleep apnea patients experience much longer pauses (typically fifteen to sixty seconds), and these may occur one hundred to six hundred times per night. Three basic types of apnea exist: obstructive, central, and mixed.

Obstructive sleep apnea (OSA) is caused by an obstruction of the upper airway during sleep and is the most common type of apnea. Breathing effort continues with OSA, but it is ineffective because of the patient's blocked airway. Individuals with OSA will commonly report that they experience excessive daytime sleepiness (EDS). Also, loud snoring occurs at night, which is a result of the vibration of tissues in the upper airway and is caused by the passage of air through a narrow airway. Another feature which is common in OSA patients is excessive body weight. OSA occurs more often in males than in females.

Children are also affected by this disorder; the most common cause is swelling of the tonsils. Therefore, all children are at risk of developing OSA, though some groups of children, such as those with Down syndrome, facial malformation, or muscular disorders, are more at risk than others. Children with OSA are typically underweight, because they usually have difficulty swallowing; they may even enjoy eating less because they are not able to smell or taste food as well as others.

Patients with obstructive sleep apnea frequently report falling asleep while driving, watching television, or reading, but some patients report little or no EDS. OSA patients may also experience intellectual or personality changes, which are probably usually related to EDS, but in severe cases may be attributable to lowered levels of oxygen reaching the brain. Another symptom associated with OSA is erectile impotence.

Central sleep apnea (CSA) is caused by a temporary absence of the effort to breathe while sleeping, and it is considered to be a rare disorder; fewer than 10 percent of all apnea patients experience CSA. CSA differs from OSA in that there is no obstruction of the upper airway, and breathing effort does not continue as it does in OSA. Patients rarely have CSA alone; the majority have both CSA and OSA episodes during the night. CSA is usually diagnosed when more than 55 percent of the episodes are central. Many authors point out that the mechanisms responsible for the two types of apnea may overlap; CSA may be attributable to a failure of the systems which monitor oxygen levels in the blood, resulting in the periodic loss of the breathing effort. CSA patients may experience between one hundred and three hundred episodes per night.

Central sleep apnea patients commonly complain of insomnia, which is poor, insufficient, or nonrefreshing sleep. Other symptoms associated with CSA are depression and decreased sexual drive. Patients with neurological disorders such as encephalitis, brain-stem tumor, and Shy-Drager syndrome may also have CSA. The range of disorders associated with CSA makes it difficult to make absolute statements about the cause of this form of apnea.

The third type of apnea is mixed sleep apnea (MSA). MSA is a pause in breathing which has both obstructive and central components. Most patients with MSA are generally considered to be similar to OSA patients in terms of symptoms, physical causes, and treatment options; however, there are also those MSA patients whose apneic episodes are characterized by long central components, and these individuals are more similar to CSA patients in terms of symptoms, cause, and treatment.

Narcolepsy is a sleep disorder which includes symptoms such as EDS, overwhelming episodes of daytime sleep, disturbed nocturnal sleep, cataplexy (sudden, brief episodes of muscle weakness or paralysis which are emotionally triggered), hypnagogic hallucinations, sleep-onset rapid eye movement (REM) periods (or SOREMPs, the occurrence of REM sleep within fifteen minutes of sleep onset as indicated by electroencephalographic, or EEG, analysis), and sleep paralysis. Four symptoms—EDS, cataplexy, sleep paralysis, and hypnagogic hallucinations—are often referred to as the "narcoleptic tetrad," although all four symptoms are rarely seen in the same patient. Narcoleptics rarely have problems falling asleep at night,

but they do awaken more frequently and exhibit more body movements during sleep than normal subjects. Narcoleptics are also frequently disturbed by vivid dreams.

The EDS associated with narcolepsy is most often experienced during boring, sedentary situations, but it may also occur when the person is highly involved with a task. Though narcoleptics may awaken from a "sleep attack" feeling refreshed, narcoleptic sleepiness is persistent and cannot be alleviated by any amount of sleep. For years, many believed that the sleep attacks associated with narcolepsy could be attributable to a sudden "urge" to sleep, but more recent thought suggests that these sleep episodes may result from a sudden failure to resist the ever-present sleepiness that narcoleptics experience.

Not all patients with narcolepsy experience cataplexy. In a study to determine the differences between narcoleptics with cataplexy and those without cataplexy, it was determined that patients who experienced cataplexy had a higher prevalence of hallucinations, sleep paralysis, and nocturnal sleep disturbance. Thus, cataplectics generally seem to be more impaired during sleep and while awake. For this reason, some have suggested that two groups of narcoleptic patients may exist: those with cataplexy and those without cataplexy. During a cataplectic episode, the narcoleptic patient maintains consciousness; however, if the episode is particularly long, the patient may enter REM sleep. Patients with severe cataplexy may experience complete paralysis in all but the respiratory muscles; these episodes can result in injury, although the most common episodes could be characterized by the patient dropping objects, losing posture, or halting motions.

Sleep paralysis in narcolepsy is experienced as the inability to move during the onset of sleep or upon awakening. These episodes may last from a few seconds to ten minutes and can be reversed by external stimuli such as another person touching the patient or calling his or her name. Sleep paralysis can be particularly frightening, although many patients learn that these episodes are usually brief and will end spontaneously. Adding to this fright, however, are the visual, auditory, or tactile hallucinations which may accompany sleep paralysis. Sleep paralysis and hypnagogic hallucinations occur in about 60 percent of narcoleptic patients. Much like patients with sleep apnea, narcoleptics may exhibit psychopathology, but it is most likely related to effects of their disturbed sleep rather than to the sleep disorder itself.

Individuals with apnea may repeatedly experience dangerously low levels of oxygen in their blood while sleeping. Oxygen is essential to the body's proper functioning, and if one does not receive the amount of oxygen the body needs, health may be affected in some way; heart disease and stroke are strongly associated with the occurrence of apnea. While it is not known if apnea actually causes these complications, the association is important nevertheless. Exposure to such low levels of oxygen in the blood over a prolonged period may result in increased blood pressure and poor circulation, as well as disturbance of heart rhythms.

Since both narcolepsy and apnea patients often experience nocturnal sleep difficulties, their quality and quantity of sleep is lowered. As a result, many patients with both disorders experience excessive daytime sleepiness. This may present

itself as a problem during such activities as work or driving. Studies indicate that narcolepsy and apnea patients are more likely to have automobile accidents, poor job performance, and less job satisfaction than those without a sleep disorder, in part because of the fact that these patients often fall asleep during such activities. Diagnosis of sleep apnea and narcolepsy in a sleep disorders clinic involves a number of measurements. The Multiple Sleep Latency Test measures the tendency of a patient to fall asleep during the day. This test, in addition to polysomnographic recording and the patient's medical history, aids in determining the proper treatment for these disorders.

Treatment and Therapy

Treatment of sleep apnea depends on a number of factors, which include frequency and type of apnea, quality of nighttime sleep, amount of oxygen in the blood during sleep, frequency and type of heart rhythm disturbance, and the tendency to sleep during waking hours. CSA patients may be treated using oxygen administration during sleep, which reduces the number of central apnea events, drug therapy, or mechanical ventilation, but all treatments for CSA have the potential to increase the occurrence of OSA in these patients. Various treatments available to patients with obstructive or mixed apnea include weight loss, drug therapy, surgery, and medical management.

Weight loss can be an important part of treatment for patients with OSA. In many cases, weight loss alone results in a reduction of the frequency and severity of apnea. Since adequate weight loss may take months, however, this option alone is not likely to be feasible for serious cases of apnea. Drug therapy has met with limited success in treating apnea patients, but there are many drugs which are being studied, and these may prove effective in treating the disorder. Surgical treatment for severe cases of apnea was, in the past, limited to tracheostomy. More recently, however, removal of unnecessary tissue in the area of obstruction has been found to reduce apnea events significantly in certain patients. Facial reconstruction is also an option in more severe cases.

Treatments for apnea which involve medical management are constantly being developed. These include the insertion of a tube which bypasses the point of obstruction, allowing normal breathing to occur, and continuous positive airway pressure (CPAP). CPAP is a technique that uses air pressure to eliminate the closure of the airway in the nasal passages. In effect, CPAP provides a "splint" for the area that causes the obstruction; it also increases lung volume. This treatment is comfortable and easy to use for most patients, and is thus very promising.

Treatments for narcolepsy all center on managing its symptoms, as there is no cure for narcolepsy itself. Fortunately, cataplexy, sleep paralysis, and hypnagogic hallucinations improve or disappear over time in approximately one-third of all narcoleptic patients. Medication may be prescribed to decrease the severity of daytime sleepiness, nocturnal sleep disturbance, and cataplexy. Regularly scheduled naps throughout the day may be used as an effective supplement to medication. Such naps may also reduce the need for medications by relieving the effects of insufficient sleep. Many doctors employ this method of treatment, because it is

important for patients to adjust their lifestyle in order to deal with the effects of narcolepsy.

Perspective and Prospects

The scientific study of sleep began in the nineteenth century, although there was certainly interest in sleep prior to that time. Technological advances during the 1930's and 1940's allowed scientists to investigate the processes of sleep with more precision than before. In 1929, Hans Berger first recorded the EEG activity of humans. This development led to the discovery of patterns of brain-wave activity during sleep and the later description of REM sleep. This period of technological growth began the modern era of sleep studies; since that time, much has been learned about sleep and how it relates to other physiological processes.

Recognition of sleep apnea as a distinct sleep disorder began in 1966, and it is estimated today that as many as one in every thirty to fifty adults has sleep apnea to the extent that their quality of life is affected in some manner. Since its description, sleep apnea has received intensive investigation by a variety of medical specialists; in sleep apnea studies, it is not uncommon to see a heart surgeon working with a psychologist and a child specialist. This is attributable to the fact that sleep apnea can be the result of a number of physical or neurological problems, and it affects patients in a number of different ways.

Between one in a thousand and one in ten thousand women and men experience narcolepsy, and the usual age of onset is between fifteen and thirty-five. In half the cases, the onset of narcoleptic symptoms is preceded by severe psychological stress, an abrupt change in the sleep-wake schedule, or some other special circumstance. Scientists suspect a genetic factor in the occurrence of narcolepsy that may involve the immune system, but data also suggest that a strong environmental factor may play a role in the development of the disorder.

In an essay in *Principles and Practice of Sleep Medicine* (1989), Christian Guillemenault writes that the word "narcolepsy" was first used in 1880 to describe a pathological condition characterized by recurring, irresistible episodes of sleep which were of short duration. Interest in the disorder grew, and in 1960 it was discovered that a narcoleptic patient exhibited sleep-onset REM periods. This phenomenon became one of the cornerstone symptoms in the diagnosis of narcolepsy, and narcolepsy has since been described as primarily a disorder of REM sleep.

Investigation of sleep is showing how important sleep is to human physical and psychological health. Many theories exist which attempt to account for why people sleep; studies indicate that tissue restoration is enhanced during sleep, the ability to concentrate suffers if one is deprived of sleep for a significant period of time, and one may experience distinct mood changes without proper sleep. As stated earlier, cardiovascular complications are frequently associated with sleep apnea, as are work-related accidents and changes in intellectual ability. Sudden infant death syndrome (SIDS) is thought by some to be associated with sleep apnea. For these reasons, the study of sleep apnea, narcolepsy, and sleep in general is crucial to the health of many people. As psychologists and physicians further understand

the processes involved in human and animal sleep, they will come closer to providing more effective treatment for patients with sleep apnea and narcolepsy.

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See also:

Brain Disorders; Child and Adolescent Psychiatry; Geriatric Psychiatry; Insomnia.

Strategic Family Therapy

Type of psychology: Psychotherapy
Fields of study: Group and family therapies

Strategic theory and interventions have been highly influential in the founding of modern family therapy. Strategic family therapy focuses on influencing family members by carefully planned interventions and the issuance of directives for resolving problems. At times, these directives may appear to be in direct opposition to the goals of treatment (an approach referred to as paradox). Strategic therapy is one of the most widely studied, taught, and emulated approaches to treating family (and individual) dysfunction.

Principal terms

AGORAPHOBIA: an intense fear of being in places or situations in which help may not be available or escape could be difficult

DOUBLE BIND: receiving contradictory messages; a form of communication which often occurs when a family member sends two messages, requests, or commands that are logically inconsistent, contradictory, or impossible

PARADOXICAL INTERVENTION: a therapy technique in which a therapist gives a patient or family a task that appears to contradict the goals of treatment

REFRAMING: redefining an event or situation in order to alter its meaning

RESTRAINING STRATEGIES: a form of paradoxical intervention wherein the therapist discourages, restrains, or denies the possibility of change

SYMPTOM PRESCRIPTION: a form of paradoxical intervention wherein the therapist encourages or instructs patients to engage in behaviors that are to be eliminated or altered

Overview

Families engage in complex interactional sequences that involve both verbal and nonverbal (for example, gestures, posture, intonation, volume) patterns of communication. Family members continually send and receive complicated messages. Strategic family approaches are designed to alter psychological difficulties which emerge from problematic interactions between individuals. Specifically, strategic therapists view individual problems (for example, depression, anxiety) as manifestations of disturbances in the family. Psychological symptoms are seen as the consequences of misguided attempts at changing an existing disturbance. For example, concerned family members may attempt to "protect" an agoraphobic patient from anxiety by rearranging activities and outings so that the patient is never left alone; unfortunately, these efforts only serve to foster greater dependency, teach avoidant behaviors, and maintain agoraphobic symptoms. From a strategic viewpoint, symptoms are regarded as communicative in nature. That is,

symptoms have distinct meanings within families and usually appear when a family member feels trapped and cannot break out of the situation via nonsymptomatic ways.

The strategic model views all behavior as an attempt to communicate. In fact, it is impossible not to communicate, just as it is impossible not to act. For example, an adolescent who runs away from home sends a message to his or her parents; similarly, the parents communicate different messages in terms of how they react. Frequently, the intended message behind these nonverbal forms of communication is difficult for family members to discern. Moreover, when contradictions appear between verbal and nonverbal messages, communication can become incongruent and clouded by mixed messages.

Gregory Bateson, who was trained as an anthropologist and developed much of the early theory behind strategic approaches, worked with other theorists to develop the double-bind theory of schizophrenia. A double-bind message is a particularly problematic form of mixed communication that occurs when a family member sends two messages, requests, or commands that are logically inconsistent, contradictory, or impossible. For example, problems arise when messages at the content level ("I love you" or "Stay close to me") conflict with nonverbal messages at another level ("I despise you" or "Keep your distance"). Eventually, it is argued, a child who is continually exposed to this mixed style of communication, that is, a "no-win" dilemma, may feel angered, helpless, and fearful, and responds by withdrawing.

Since Bateson's early work in communication theory and therapy, the strategic approach has undergone considerable revision. At least three divisions of strategic family therapy are frequently cited: the original Mental Research Institute (MRI) interactional view, the strategic approach advocated by therapists Jay Haley and Cloe Madanes, and the Milan systemic family therapy model. There is considerable overlap among these approaches, and the therapy tactics are generally similar.

The MRI interactional family therapy approach shares a common theoretical foundation with the other strategic approaches. In addition to Bateson, some of the prominent therapists who have been associated with the institute at one time or another are Don Jackson, Jay Haley, Virginia Satir, and Paul Watzlawick. As modified by Watzlawick's writings, including *The Invented Reality* (1984), the MRI model emphasizes that patients' attempts to solve problems often maintain or exacerbate difficulties. Problems may arise when the family either overreacts or underreacts to events. For example, ordinary life difficulties or transitions (for example, a child beginning school, an adult dealing with new work assignments) may be associated with family overreactions. Similarly, significant problems may be treated as no particular problem. The failure to handle such events in a constructive manner within the family system eventually leads to the problem taking on proportions and characteristics which may seem to have little similarity to the original difficulty. During family therapy, the MRI approach employs a step-by-step progression of suggested strategies toward the elimination of a symptom. Paradoxical procedures, which are described later, represent a mainstay of the MRI approach.

Haley and Madanes's approach to strategic family therapy argues that change occurs through the process of the family carrying out assignments (to be completed outside therapy) issued by the therapist. As described in Madanes's *Strategic Family Therapy* (1981), strategic therapists attempt to design a therapeutic strategy for each specific problem. Instead of "suggesting" strategies, as in the MRI approach, therapists issue directives which are designed deliberately to shift the organization of the family in order to resolve the presenting problem. Problems are viewed as serving a function in the family and always involve at least two or three individuals. As detailed in Haley's *Leaving Home: The Therapy of Disturbed Young People* (1980) and *Ordeal Therapy: Unusual Ways to Change Behavior* (1984), treatment includes intense involvement, carefully planned interventions designed to reach clear goals, frequent use of therapist-generated directives or assignments, and paradoxical procedures.

The Milan systemic family therapy model is easily distinguished from other strategic approaches because of its unique spacing of therapeutic sessions and innovative team approach to treatment. The original work of therapists Mara Selvini-Palazzoli, Luigi Boscolo, Gianfranco Cecchin, and Guiliana Prata has been described as "long brief" family therapy and was used to treat a wide variety of severe problems such as anorexia and schizophrenia. The first detailed description of the Milan group's approach was written by the four founding therapists and called *Paradox and Counterparadox: A New Model in the Therapy of the Family in Schizophrenic Transition* (1978). The original Milan approach incorporated monthly sessions for approximately one year. The unusual spacing of sessions was originally scheduled because many of the families seen in treatment traveled hundreds of miles by train to receive therapy. Later, however, the Milan group decided that many of their interventions, including paradox, required considerable time to work. Thus, they continued the long brief model. Another distinguishing factor of the Milan group was its use of therapist-observer teams who watched treatment sessions from behind a two-way mirror. From time to time, the therapist observers would request that the family therapist interrupt the session to confer about the treatment process. Following this discussion, the family therapist would rejoin the session and initiate interventions, including paradox, as discussed by the team of therapist observers who remained behind the mirror. In 1980, the four originators of the Milan group divided into two smaller groups (Boscolo and Cecchin; Selvini-Palazzoli and Prata). Shortly thereafter, Selvini-Palazzoli and Prata continued pursuing family research separately. The more recent work of Boscolo and Cecchin is described in *Milan Systemic Family Therapy* (1987), while Selvini-Palazzoli's new work is presented in *Family Games* (1989), which she wrote with several new colleagues.

Applications

Jay Haley argued that conventional mental health approaches were not providing effective treatment. Based on his work with schizophrenics, he observed that patients typically would improve during their hospitalizations, return home, and then quickly suffer relapses. He also suggested that if the patient did improve while

away from the hospital, then a family crisis would often ensue, resulting in the patient's eventual rehospitalization. Thus, effective treatment from a strategic framework often required family members to weather crises and alter family patterns of communication so that constructive change could occur.

Related to Haley's work with hospitalized patients was his treatment of "disturbed" young adults who exhibited bizarre behavior and/or continually took illegal drugs. In *Leaving Home: The Therapy of Disturbed Young People*, Haley suggests that it is best to assume that the problem is not an individual problem, but a problem of the family and young person separating from each other. That is, young adults typically leave home as they succeed in work, school, or career and form other intimate relationships. Some families, however, become unstable, dysfunctional, or distressed as the son or daughter attempts to leave. In order to regain family stability, the young adult may fail in attempts to leave home (often via abnormal behavior). Furthermore, if the family organization does not shift, then the young adult may be destined to fail over and over again.

Haley's approach to treating such cases includes several stages of strategic therapy. First, the entire family attends the initial interview, and the parents are put in charge of solving their child's problems. During treatment, the parents are told that they are the best therapists for their child's problems. Because the family is assumed to be in conflict (as shown by the patient's problems), requiring the family to take charge and become active in the treatment of the identified patient allows for greater opportunities to intervene around the conflict. In particular, it is assumed that the hierarchy of the family is in confusion and that the parents must take an active role in shifting the family's organization. Also, all family members are encouraged to adopt a position in which they expect the identified patient's problems to become normal.

As the identified patient improves, the family will often experience a crisis and become unstable again. A relapse of the identified patient would follow the usual sequence for the family and return stability (and familiarity) to the system. Unfortunately, a relapse would only serve to perpetuate the dysfunction. Therefore, the therapist may further assist the family by dealing with concerns such as parental conflicts and fears, or attempt to assist the young adult by providing opportunities away from therapy sessions which foster continued growth. Eventually, termination is planned, based on the belief that treatment does not require the resolution of all family problems, but instead those centered on the young adult.

Strategic therapists share a common belief in the utility of paradoxical procedures. In fact, the history of modern paradoxical psychotherapy is frequently credited as beginning with the MRI group, although paradoxical techniques have been discussed by various theorists from other orientations. Paradox refers to a contradiction or an apparent inconsistency that defies logical deduction. That is, strategic paradox is employed as a means of altering behavior through the use of strategies in apparent opposition to treatment goals. The need for paradoxical procedures is based on the assumption that families are very resistant to change and frequently attempt to disrupt the therapist's effort to help them. Thus, if the therapist suggests common therapeutic tactics (for example, communication

homework, parenting suggestions), then the family may resist (for example, may "forget" to do the homework, sabotaging the exercise) and fail to improve. On the other hand, if the therapist tells the family to do what they are already doing, then the family may resist by getting better.

A variety of explanations have been offered to explain the manner in which paradox works. In *Change: Principles of Problem Formation and Problem Resolution* (1974), written by Watzlawick and his colleagues, paradox is described as producing a special type of change among family members. That is, there are two levels of change: first-order and second-order change. First-order change is change within a family system (for example, a parent increasing punishment as the child's behavior becomes more disruptive). First-order change is typically conducted in a step-by-step fashion and involves the uses of problem-solving strategies. On the other hand, second-order change refers to changing the family system itself, and it typically occurs in a sudden and radical manner. The therapist attempts to change the system by unexpected, illogical, or abrupt methods. Paradoxical procedures are designed to effect second-order change. A paradoxical approach might be to encourage the child to act out every time he or she believes that the parents are about to have a fight. In such a case, the family system may be transformed by family members receiving important feedback about the manner in which they operate, by increased understanding of one another's impact on the system, and by efforts to discard "old family rules" by initiating new procedures for effective family living.

Several different classes of paradoxical interventions are highlighted in Gerald Weeks and Luciano L'Abate's book *Paradoxical Psychotherapy: Theory and Practice with Individuals, Couples, and Families* (1982). These include reframing, prescribing the symptom, and restraining.

Reframing refers to providing an alternative meaning or viewpoint to explain an event. A common example of reframing is Tom Sawyer, who described the boredom of whitewashing a fence as pleasurable and collected cash from his peers for the opportunity to assist him. Reframing provides a new framework from which to evaluate interactions (for example, "Mom is smothering" versus "Mom is caring and concerned").

Prescribing the symptom refers to encouraging or instructing patients to engage in the behavior that is to be eliminated or altered. Symptom prescription is the most common form of paradox in the family therapy literature. Following the presentation of an appropriate rationale to the family (for example, to gain more assessment information), the therapist offers a paradoxical instruction to the family, typically as part of the week's homework. For example, a child who frequently throws temper tantrums may be specifically instructed to engage in tantrums, but only in certain locations at scheduled times. Another common use of paradox involves symptom prescription for insomniacs. A patient with onset insomnia (difficulty falling asleep) may be encouraged to remain awake in order to become more aware of his or her thoughts and feelings before falling asleep. As might be guessed, anxiety is often associated with onset insomnia, and such an intervention serves to decrease anxiety about failing to fall asleep by introducing the idea that the patient

is supposed to stay awake. Frequently, patients describe difficulty completing the homework because they "keep falling asleep too quickly."

Restraining strategies include attempts to discourage, restrain, or even deny the possibility of change; the therapist might say, "Go slow," or, "The situation appears hopeless," or, "Don't change." The basis for restraining strategies is the belief that many patients may not wish to change. Why would patients seek treatment and spend money toward that end if they do not wish to improve? All change involves risk, and with risk comes danger and/or uncertainty. Moreover, the future may be less predictable following change. In fact, it is possible to conceive of most recurring patterns of family dysfunction or individual difficulties as a heavy overcoat. At times, the heavy overcoat serves a useful purpose by protecting one from harsh weather. As time passes, however, the overcoat becomes uncomfortable as the weather becomes warmer. Still, many people dread taking off the overcoat because they are used to it, it has become familiar, and the future seems uncertain without it. From the patient's viewpoint, discomfort may be more acceptable than change (and the uncertainty it brings).

Perhaps the most common restraining strategy is predicting a relapse. In predicting a relapse, the patient is told that a previous problem or symptom will reappear. By so doing, the therapist is in a no-lose situation. If the problem reappears, then it was predicted successfully by the therapist, is understood by the therapist, and can be dealt with by the therapist and patient. If the problem does not reappear, then the problem is being effectively controlled by the patient.

Perspective and Prospects

Strategic approaches, based on communication theories, developed from research conducted at the Mental Research Institute (MRI) in Palo Alto, California, in the 1950's. In contrast to psychodynamic approaches, which emphasize the importance of past history, trauma, and inner conflicts, strategic therapies highlight the importance of the "here and now," and view psychological difficulties as emerging from problematic interactions between individuals (family members or married partners). Moreover, strategic therapists tend to follow a brief model of treatment, in contrast to many individual and family therapy approaches.

The effectiveness of family therapy approaches, including strategic approaches, is difficult to measure. Although there has been a clear increase in research evaluating the efficacy of family interventions since about 1980, the results are less than clear because of difficulties with research methodologies and diverse research populations. For example, psychodynamic therapists prefer to use case studies rather than experimental designs to determine effectiveness. Strategic therapists have conducted only a handful of research studies, but these results are encouraging. A structural-strategic approach developed by psychologist M. Duncan Stanton has demonstrated effectiveness in the treatment of drug abuse. Also, the Milan approach has been found to be effective for a variety of problems identified by families who participated in a three-year research program. Further research is warranted, however, before definitive conclusions about the empirical effectiveness of strategic approaches can be reached.

In conclusion, strategic family therapy has shaped the field of family therapy. Innovative approaches such as paradox have been associated with strategic therapy for years, and advances continue to be seen from the respective groups of strategic therapists. Although strategic approaches such as paradoxical directives are frequently regarded as controversial and perhaps risky, the importance of some strategic contributions to the field of family therapy—in particular, the recognition of multiple levels of communication, and of subtle nuances of power struggles in relationships—is widely accepted.

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Gregory L. Wilson

See also:

Abnormality: Family Models; Behavioral Family Therapy; Couples Therapy; Divorce and Separation: Adult Issues; Divorce and Separation: Children's Issues; Modeling Therapies; Play Therapy; Psychotherapy: Children; Psychotherapy: Effectiveness; Psychotherapy: Goals and Techniques.

STRESS

Type of psychology: Stress
Fields of study: Coping; critical issues in stress; stress and illness

The stress response consists of physiological arousal, subjective feelings of discomfort, and the behavioral changes people experience when they confront situations that they appraise as dangerous or threatening. Because exposure to extreme situational or chronic stress causes emotional distress and may impair physical functioning, it is important to learn effective stress coping strategies.

Principal terms

COGNITIVE APPRAISAL: an assessment of the meaningfulness of an event to an individual; events that are appraised as harmful or potentially harmful elicit stress

EMOTION-FOCUSED COPING: minimizing negative emotions elicited by a stressor by using techniques such as relaxation and denial and paying little attention to the stressor itself

LEARNED HELPLESSNESS: motivational, cognitive, and emotional deficits resulting from exposure to a stressor that is perceived to be uncontrollable

PROBLEM-FOCUSED COPING: minimizing negative emotions elicited by a stressor by changing or avoiding the stressor

STRESSOR: an event that is appraised as dangerous or threatening and that elicits a stress response

Overview

In the past, the term "stress" designated both a stimulus (a force or pressure) and a response (adversity, affliction). More recently, it has usually been used to denote a set of changes that people undergo in situations that they appraise as threatening to their well-being. These changes involve physiological arousal, subjective feelings of discomfort, and overt behaviors. The terms "anxiety" and "fear" are also used to indicate what people experience when they appraise circumstances as straining their ability to cope with them.

The external circumstances that induce stress responses are called stressors. Stressors have a number of important temporal components. Exposure to them may be relatively brief with a clear starting and stopping point (acute stressors) or may persist for extended periods without clear demarcation (chronic stressors). Stressors impinge on people at different points in their life cycles, sometimes occurring "off time" (at times that are incompatible with personal and societal expectations of their occurrence) or at a "bad time" (along with other stressors). Finally, stress may be induced by the anticipation of harmful circumstances that one thinks one is likely to confront, by an ongoing stressor, or by the harmful effects of stressors already encountered. All these factors affect people's interpretations of stressful events, how they deal with them, and how effective they are at coping with them.

Although there are some situations to which almost everyone responds with high levels of stress, there are individual differences in how people respond to situations. Thus, though most people cringe at the thought of having to parachute from an airplane, a substantial minority find this an exciting, challenging adventure. Most people avoid contact with snakes, yet others keep them as pets. For most people, automobiles, birds, and people with deep voices are largely neutral objects, yet for others they provoke a stress reaction that may verge on panic.

The key concept is cognitive appraisal. Situations become stressors for an individual only if they are construed as threatening or dangerous by that individual. As demonstrated in a study of parachuters, by psychologists Walter D. Fenz and Seymour Epstein, stress appraisals can change markedly over the course of exposure to a stressor, and patterns of stress arousal differ as a function of experience with the stressor. Fenz and Epstein found that fear levels of veteran jumpers (as evaluated by a self-report measure) were highest the morning before the jump, declined continuously up to the moment of the jump, and then increased slightly until after landing. Fear levels for novice jumpers, in contrast, increased up to a point shortly before the jump and then decreased continuously. For both groups, the peak of stress occurred during the anticipatory period rather than at the point of the greatest objective danger (the act of jumping).

Stress reactions are measured in three broad ways: by means of self-report, through behavioral observations, and on the basis of physiological arousal. The self-report technique is the technique most commonly used by behavioral scientists to evaluate subjective stress levels. The State Anxiety Scale of the State-Trait Anxiety Inventory, developed by psychologist Charles Spielberger, is one of the most widely used self-report measures of stress. Examples of items on this scale are “I am tense,” “I am worried,” and “I feel pleasant.” Subjects are instructed to respond to the items in terms of how they currently feel.

Self-report state anxiety scales may be administered and scored easily and quickly. Further, they may be administered repeatedly and still provide valid measures of momentary changes in stress levels. They have been criticized by some, however, because they are face valid (that is, their intent is clear); therefore, people who are motivated to disguise their stress levels can readily do so.

Overt behavioral measures of stress include direct and indirect observational measures. Direct measures focus on behaviors associated with stress-related physiological arousal such as heavy breathing, tremors, and perspiration; self-manipulations such as nail biting, blinking, and postural orientation; and body movement such as pacing.

Speech disturbances, both verbal (for example, repetitions, omissions, incomplete sentences, and slips of the tongue) and nonverbal (for example, pauses and hand movements), have been analyzed intensively, but no single measure or pattern has emerged as a reliable indicant of stress. Another way in which people commonly express fear reactions is by means of facial expressions. This area has been studied by psychologists Paul Ekman and Wallace V. Friesen, who concluded that the facial features that take on the most distinctive appearance during fear are the eyebrows (raised and drawn together), the eyes (open, lower lid tensed), and the lips (stretched back).

Indirect observational measures involve evaluating the degree to which people avoid feared objects. For example, in one test used by clinical psychologists to assess fear level, an individual is instructed to approach a feared stimulus (such as a snake) and engage in increasingly intimate interactions with it (for example, looking at a caged snake from a distance, approaching it, touching it, holding it). The rationale is that the higher the level of fear elicited, the earlier in the sequence the person will try to avoid the feared stimulus. Other examples include asking claustrophobics (people who are fearful of being closed in) to remain in a closed chamber as long as they can and asking acrophobics (people who fear heights) to climb a ladder and assessing their progress.

Physiological arousal is an integral component of the stress response. The most frequently monitored response systems are cardiovascular responses, electrodermal responses, and muscular tension. These measures are important in their own right as independent indicants of stress level, and in particular as possible indices of stress-related diseases.

Applications

The concept of stress has been used to help explain the etiology of certain diseases. Diseases that are thought to be caused in part by exposure to stress or poor ability to cope with stress are called psychophysiological or psychosomatic disorders. Among the diseases that seem to have strong psychological components are ulcers and coronary heart disease. The role of stress in ulcers was highlighted in a study by Joseph V. Brady known as the "executive monkey" study. In this study, pairs of monkeys were yoked together in a restraining apparatus. The monkeys received identical treatment except that one member of each pair could anticipate whether both of them would be shocked (he was given a warning signal) and could control whether the shock was actually administered (if he pressed a lever, the shock was avoided). Thus, one monkey in each pair (the "executive monkey") had to make decisions constantly and was responsible for the welfare of both himself and his partner. Twelve pairs of monkeys were tested, and in every case the executive monkey died of peptic ulcers within weeks, while the passive member of each pair remained healthy. This experiment was criticized because of flaws in its experimental design, but it nevertheless brought much attention to the important role that chronic stress can play in the activation of physiological processes (in this case, the secretion of hydrochloric acid in the stomach in the absence of food) that can be damaging or even life-threatening.

Although being in the position of a business executive who has to make decisions constantly can be very stressful, research indicates that it may be even more damaging to be exposed to stress over long periods and not have the opportunity to change or control the source of stress. People and animals who are in aversive situations over which they have little or no control for prolonged periods are said to experience "learned helplessness." This concept was introduced by psychologist Martin E. P. Seligman and his colleagues. In controlled research with rats and dogs, he and his colleagues demonstrated that exposure to prolonged stress that cannot be controlled produces emotional, motivational, and cognitive

deficits. The animals show signs of depression and withdrawal, they show little ability or desire to master their environment, and their problem-solving ability suffers.

Learned helplessness has also been observed in humans. Seligman refers to Bruno Bettelheim's descriptions of some of the inmates of the Nazi concentration camps during World War II, who, when faced with the incredible brutality and hopelessness of their situation, gave up and died without any apparent physical cause. Many institutionalized patients (for example, nursing home residents and the chronically ill) also live in environments that are stressful because they have little control over them. Seligman suggests that the stress levels of such patients can be lowered and their health improved if they are given maximum control over their everyday activities (such as choosing what they want for breakfast, the color of their curtains, and whether to sleep late or wake up early).

Research findings have supported Seligman's suggestions. For example, psychologists Ellen Langer and Judith Rodin told a group of elderly nursing home residents that they could decide what they wanted their rooms to look like, when they wanted to go see motion pictures, and with whom they wanted to interact. A second comparable group of elderly residents, who were randomly assigned to live on another floor, were told that the staff would care for them and try to keep them happy. It was found that the residents in the first group became more active and reported feeling happier than those in the second group. They also became more alert and involved in different kinds of activities, such as attending movies and socializing. Further, during the eighteen-month period following the intervention, 15 percent of the subjects in the first group died, whereas 30 percent of the subjects in the second group died.

Altering people's perception of control and predictability can also help them adjust to transitory stressful situations. Studies by psychologists Stephen Auerbach, Suzanne Miller, and others have shown that for people who prefer to deal with stress in active ways (rather than by avoiding the source of stress), adjustment to stressful surgical procedures and diagnostic examinations can be improved if they are provided with detailed information about the impending procedure. It is likely that the information enhances their sense of predictability and control in an otherwise minimally controllable situation. Others, who prefer to control their stress by "blunting" the stressor, show better adjustment when they are not given detailed information.

Perspective and Prospects

Physiologist Walter B. Cannon was among the first scientists to describe how people respond to stressful circumstances. When faced with a threat, one's body mobilizes for "fight or flight." One's heart rate increases, one begins to perspire, one's muscles tense, and one undergoes other physiological changes to prepare for action—either to confront the stressor or to flee the situation.

Physician Hans Selye examined the fight-or-flight response in more detail by studying physiological changes in rats exposed to stress. He identified three stages of reaction to stress, which he collectively termed the general adaptation syndrome

(GAS). This includes an initial alarm reaction, followed by a stage of resistance, and finally by a stage of exhaustion, which results from long-term unabated exposure to stress and produces irreversible physiological damage. Selye also brought attention to the idea that not only clearly aversive events (for example, the death of a spouse or a jail sentence) but also events that appear positive (for example, a promotion at work or meeting new friends) may be stressful because they involve changes to which people must adapt. Thus, these ostensibly positive events (which he called eustress) will produce the nonspecific physiological stress response just as obviously negative events (which he called distress) will.

How an individual cognitively appraises an event is the most important determinant of whether that event will be perceived as stressful by that person. Psychologist Richard S. Lazarus has delineated three important cognitive mechanisms (primary appraisals, secondary appraisals, and coping strategies) that determine perceptions of stressfulness and how people alter appraisals. Primary appraisal refers to an assessment of whether a situation is neutral, challenging, or potentially harmful. When a situation is judged to be harmful or threatening, a secondary appraisal is made of the coping options or maneuvers that the individual has at his or her disposal. Actual coping strategies that may be used are problem focused (those that involve altering the circumstances that are eliciting the stress response) or emotion focused (those that involve directly lowering physiological arousal or the cognitive determinants of the stress response). Psychologists have used concepts such as these to develop stress management procedures that help people control stress in their everyday lives.

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Stephen M. Auerbach

See also:

Anxiety Disorders; Biofeedback and Relaxation; Depression; Phobias; Post-traumatic Stress; Stress: Behavioral and Psychological Responses; Stress: Coping Strategies; Stress: Physiological Responses; Stress: Prediction and Control.

STRESS
Behavioral and Psychological Responses

Type of psychology: Stress
Fields of study: Coping; critical issues in stress; stress and illness

Stress is an adaptive reaction to circumstances that are perceived as threatening. It motivates people and can enhance performance. Learning to cope with adversity is an important aspect of normal psychological development, but exposure to chronic stress can have severe negative consequences if effective coping mechanisms are not learned.

Principal terms

COPING STRATEGIES: techniques used to lower one's stress level

DAILY HASSLES: seemingly minor everyday events that are a constant source of stress

PHOBIAS: stresses induced by unrealistic fear of specific situations

STATE ANXIETY: often used interchangeably with *fear* and *stress;* denotes a momentary, transitory reaction to a situation that is perceived as threatening or dangerous

TRAIT ANXIETY: relatively stable individual differences in proneness to experience state anxiety; people high in trait anxiety are especially threatened by situations involving fear of failure or social/interpersonal threats

Overview

The term "stress" is used to designate how human beings respond when they confront circumstances that they appraise as dangerous or threatening and that tax their coping capability. Stressful events (stressors) elicit a wide range of responses in humans. They not only bring about immediate physiological changes but also affect one's emotional state, the use of one's intellectual abilities and one's efficiency at solving problems, and one's social behavior. When experiencing stress, people take steps to do something about the stressors eliciting the stress and to manage the emotional upset they are producing. These maneuvers are called coping responses. Coping is a key concept in the study of the stress process. Stress-management intervention techniques are designed to teach people the appropriate ways to cope with the stressors that they encounter in their everyday lives.

The emotional state most directly affected by stress is anxiety. In fact, the term "state anxiety" is often used interchangeably with the terms "fear" and "stress" to denote a transitory emotional reaction to a dangerous situation. Stress, fear, and state anxiety are distinguished from trait anxiety, which is conceptualized as a relatively stable personality disposition or trait. According to psychologist Charles

Spielberger, people high in trait or "chronic" anxiety interpret more situations as dangerous or threatening than do people who are low in trait anxiety, and they respond to them with more intense stress (state anxiety) reactions. Instruments that measure trait anxiety ask people to characterize how they usually feel, and thus they measure how people characteristically respond to situations. Measures of trait anxiety (such as the trait anxiety scale of the State-Trait Anxiety Inventory) are especially useful in predicting whether people will experience high levels of stress in situations involving threats to self-esteem or threat of failure at evaluative tasks.

Common phobias or fears of specific situations, however, especially when the perceived threat has a strong physical component, are not related to individual differences in general trait anxiety level. Measures of general trait anxiety are therefore not good predictors of people's stress levels when they are confronted by snakes, an impending surgical operation, or the threat of electric shock. Such fears can be reliably predicted only by scales designed to evaluate proneness to experience fear in these particular situations.

Seemingly minor events that are a constant source of irritation can be very stressful, as can more focalized events that require major and sometimes sudden readjustments. Psychologists Richard Lazarus and Susan Folkman have dubbed these minor events "daily hassles." The media focus attention on disasters such as plane crashes, earthquakes, and epidemics that suddenly disrupt the lives of many people, or on particularly gruesome crimes or other occurrences that are likely to attract attention. For most people, however, much of the stress of daily life results from having to deal with ongoing problems pertaining to jobs, personal relationships, and everyday living circumstances. According to Lazarus and Folkman, exposure to such daily hassles is actually more predictive of negative health outcomes than is frequency of exposure to major life events.

People often have no actual experience of harm or unpleasantness regarding things that they come to fear. For example, most people are at least somewhat uneasy about flying on airplanes or about the prospect of having a nuclear power plant located near them, though few people have personally experienced harm caused by these things. Although people tend to pride themselves on how logical they are, they are often not very rational in appraising how dangerous or risky different events actually are. For example, there is great public concern about the safety of nuclear reactors, though they in fact have caused very few deaths. The same general public that smokes billions of cigarettes (a proved carcinogen) per year also supported banning an artificial sweetener because of a minuscule chance that it might cause cancer.

People tend to think of stress as being uniformly negative—something to be avoided or at least minimized as much as possible. Psychologists Carolyn Aldwin and Daniel Stokols point out, however, that studies using both animals and humans have indicated that exposure to stress also has beneficial effects. Rats handled as infants are less fearful, are more exploratory, are faster learners, and have more robust immune systems later in life. In humans, physical stature as adults is greater in cultures that expose children to stress (for example, circumcision, scarification, sleeping apart from parents) than in those that are careful to prevent stress

exposure—even when nutrition, climate, and other relevant variables are taken into account. Although failure experiences in dealing with stressful circumstances can inhibit future ability to function under stress, success experiences enable learning of important coping and problem-solving skills that are then used to deal effectively with future stressful encounters. Such success experiences also promote a positive self-concept and induce a generalized sense of self-efficacy that in turn enhances persistence in coping with future stressors.

Stress is a normal, adaptive reaction to threat. It signals danger and prepares people to take defensive action. Over time, individuals learn which coping strategies are successful for them in particular situations. This is part of the normal process of personal growth and maturation. Stress can, however, cause psychological problems if the demands posed by stressors overwhelm a person's coping capabilities. If a sense of being overwhelmed and unable to control events persists over a period of time, one's stress signaling system ceases to work in an adaptive way. One misreads and overinterprets the actual degree of threat posed by situations, makes poor decisions as to what coping strategies to use, and realizes that one is coping inefficiently; a cycle of increasing distress and ineffective coping may result. Some people who have experienced high-level stress for extended periods or who are attempting to deal with the aftereffects of traumatic stressors may become extremely socially withdrawn and show other signs of severe emotional dysfunction.

Applications

The fact that stress has both positive and negative effects can be exemplified in many ways. Interpersonally, stress brings out the worst and the best in people. A greater incidence of negative social behaviors, including less altruism and cooperation and more aggression, has generally been observed in stressful circumstances. Psychologist Kent Bailey points out that, in addition to any learning influences, this may result from the fact that stress signals real or imagined threats to survival and is therefore a potent elicitor of regressive, self-serving survival behaviors. The highly publicized 1964 murder of Kitty Genovese in Queens, New York, which was witnessed by thirty-eight people (from the safety of their apartments) who ignored her pleas for help, exemplifies this tendency, as does the behavior during World War II of many Europeans who either did not stand up for the Jews and other minorities who were oppressed by the Nazis or conveniently turned their heads. Everyone has heard, however, of selfless acts of individual heroism being performed by seemingly ordinary people who in emergency situations rose to the occasion and risked their own lives to save others. Even in a Europe dominated by Adolf Hitler, there were people who risked great harm to themselves and their families to save others. In addition, in stressful circumstances in which cooperation and altruism have survival value for all concerned, as in the wake of a natural disaster, helping-oriented activities and resource sharing are among the most common short-term reactions.

Stress may enhance as well as hinder performance. For example, the classic view of the relationship between stress and performance is represented in the

Yerkes-Dodson inverted-U model, which posits that both low and high levels of arousal decrease performance, whereas intermediate levels enhance performance. Although this model has not been unequivocally validated, it seems to be at least partially correct, and its correctness may depend upon the circumstances. On the one hand, psychologists Gary Evans and Sheldon Cohen concluded that, in learning and performance tasks, high levels of stress result in reduced levels of working-memory capacity and clearly interfere with performance of tasks that require rapid detection, sustained attention, or attention to multiple sources of input. On the other hand, psychologist Charles Spielberger found that in less complex tasks, as learning progresses, high stress levels may facilitate performance.

Psychologist Irving Janis examined the relationship between preoperative stress in surgical patients and how well they coped with the rigors of the postoperative convalescent period. He found that patients with moderate preoperative fear levels adjusted better after surgery than those with low or high preoperative fear. He reasoned that patients with moderate fear levels realistically appraised the situation, determined how they would deal with the stressful aspects of the recovery period, and thus were better able to tolerate those stressors. Patients low in preoperative fear engaged in unrealistic denial and thus were unprepared for the demands of the postoperative period, whereas those high in preoperative fear became overanxious and carried their inappropriately high stress levels over into the recovery period, in which that stress continued to inhibit them from realistically dealing with the demands of the situation. The negative effect of unrealistically low fear levels is also exemplified in the description by psychologists Walter Fenz and Seymour Epstein of two first-time sky divers who surprised everyone with their apparent total lack of concern during training and on the morning of their first jump. Their reactions changed dramatically, however, once they entered the aircraft. “One began vomiting, and the other developed a coarse tremor. Both pleaded for the aircraft to be turned back. Upon leaving, they stated that they were giving up jumping.”

Janis’s investigation was particularly influential because it drew attention to the question of how psychologists can work with people to help them cope with impending stressful events, especially those (such as surgery) that they are committed to confronting and over which they have little control. Findings by psychologists Thomas Strentz and Stephen Auerbach indicate that in such situations it may be more useful to teach people emotion-focused coping strategies (those designed to minimize stress and physiological arousal directly) than problem-focused strategies (those designed to change the stressful situation itself). In a study with volunteers who were abducted and held hostage for four days in a stressful simulation, they found that hostages who were taught to use emotion-focused coping techniques (such as deep breathing, muscular relaxation, and directed fantasy) adjusted better and experienced lower stress levels than those who were taught problem-focused techniques (such as nonverbal communication, how to interact with captors, and how to gather intelligence).

Perspective and Prospects

Stress has many important adaptive functions. The experience of stress and learning how to cope with adversity is an essential aspect of normal growth and development. Coping strategies learned in particular situations must be generalized appropriately to new situations. Exposure to chronic stress that cannot be coped with effectively can have severe negative consequences. Work by pioneering stress researchers such as Hans Selye brought attention to the physiological changes produced by exposure to chronic stress, which contribute to diseases such as peptic ulcers, high blood pressure, and cardiovascular disorders. Subsequent research by psychiatrists Thomas Holmes and Richard Rahe and their colleagues indicated that exposure to a relatively large number of stressful life events is associated with the onset of other diseases such as cancer and psychiatric disorders, which are less directly a function of arousal in specific physiological systems.

Studies by these researchers have led psychologists to try to understand how best to teach people to manage and cope with stress. Learning to cope with stress is a complex matter because, as Richard Lazarus has emphasized, the stressfulness of given events is determined by how they are cognitively appraised, and this can vary considerably among individuals. Further, the source of stress may be in the past, the present, or the future. The prospect of an impending threatening encounter (such as a school exam) may evoke high-level stress, but people also experience stress when reflecting on past unpleasant or humiliating experiences or when dealing with an immediate, ongoing danger. Sometimes, people deal with past, present, and future stressors simultaneously.

It is important to distinguish among present, past, and future stressors, because psychological and behavioral responses to them differ, and different kinds of coping strategies are effective in dealing with them. For example, for stressors that may never occur but are so aversive that people want to avoid them if at all possible (for example, cancer or injury in an automobile accident), people engage in preventive coping behavior (they stop smoking, or they wear seat belts) even though they are not currently experiencing a high level of anxiety. In this kind of situation, an individual's anxiety level sometimes needs to be heightened in order to motivate coping behavior.

When known stressors are looming (for example, a surgical operation the next morning), it is important to moderate one's anxiety level so that one can function effectively when actually confronting the stressor. The situation is much different when one is trying to deal with a significant stressor (such as sexual assault, death of a loved one, or a war experience) that has already occurred but continues to cause emotional distress. Some persons who cannot adjust adequately are diagnosed as having "post-traumatic stress disorder." Important aspects of coping with such stressors include conceptualizing one's response to the situation as normal and rational rather than "crazy" or inadequate, and reinstatement of the belief that one is in control of one's life and environment rather than subject to the whims of circumstance.

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Stephen M. Auerbach

See also:

Anxiety Disorders; Biofeedback and Relaxation; Depression; Phobias; Posttraumatic Stress; Stress; Stress: Coping Strategies; Stress: Physiological Responses; Stress: Prediction and Control.

STRESS
Coping Strategies

Type of psychology: Stress
Fields of study: Coping

When people are exposed to a stressful demand, they respond by coping; coping attempts either to reduce the demand, to reduce its effect, or to help one change the way one thinks about the demand. Coping can either help one in stressful situations or increase the kind and number of problems created by the demand.

Principal terms

COGNITIVE: any activity that involves thought, such as remembering, thinking, or problem solving

COPING: responses which are directed to dealing with demands upon an organism; these responses may either improve or reduce long-term functioning

PROGRESSIVE RELAXATION: a stress-management technique which involves intentionally testing and relaxing each of the major muscles in the body until complete relaxation is achieved

STRESS RESPONSE: the body's response to a demand

STRESSOR: anything that produces a demand on an organism

Overview

Coping includes all the possible responses to stressors in one's environment. As a stressor makes demands on an organism and initiates a stress response, the organism initiates behaviors and thoughts which attempt to remove the stressor or to reinterpret its effects. Coping often reduces the negative effects of the stressor, but sometimes coping creates new and different problems.

Coping strategies may emphasize the physical, social, or psychological components of stress and the stress response. Coping strategies may attempt to eliminate or moderate the initial source of the stress reaction (stimulus-directed coping), reduce the magnitude of the stress response (response-directed coping), or change the way the stressor is perceived (cognitive coping).

The coping strategies directed toward the stressor itself in stimulus-directed coping may eliminate the cause of the problem. The physical changes which occur in response to stress are very much like pain in that they warn that something in the environment is unusual and is a potential threat. Taking action to eliminate the threat not only removes the present demand but also reduces the possibility of continued stress.

Several stress-management techniques are directed toward reducing the influence of the stressor itself. Improving problem-solving skills and knowledge about the problem increases understanding and improves access to solutions. Time-management techniques can also reduce stress by eliminating its source. Solving

the most important problems first and improving the quality of time spent on tasks reduces stress by eliminating the problem sooner. Changes in the work environment can also reduce stress. Eliminating sources of stress in the workplace, improving communication between workers and management, allowing workers to have control over their jobs, using workers who are capable of doing the job, and rewarding workers for good job performance can all reduce job-related stress. Sometimes stress reduction involves changing jobs or eliminating the stress-producing activity or relationship. Even with good stimulus-directed coping skills, it is not always possible to eliminate the stressor itself.

Many of the techniques of stress management are directed toward reducing the stress response. The pattern of physiological arousal in a stress response feels uncomfortable to most people; moreover, the related physiological changes can increase one's chances of illness or injury. The stress response is often treated as a physical illness. Prescribed medication, such as tranquilizing drugs, may be provided to reduce the unpleasant symptoms of the stress response such as anxiety, muscle tension, and pain. Sometimes people medicate themselves, choosing alcohol or other nonprescription drugs to reduce the symptoms of the stress response. All these medications do reduce the effects of stress over the short term, but they also tend to create problems of their own. Medications can be habit forming and may continue to be used after the stressful situation is gone. They may promote an artificial contentment and limit the possibility of finding a permanent solution to the problem creating the stress. Tranquilizing medications also tend to produce sleepiness, slowed reaction time, poor coordination, and inhibitions in judgment. These effects may hinder work productivity and safety.

One physical approach to coping with stress involves increasing the level of exercise. Regular strenuous exercise has a wide range of benefits. It reduces tension in muscles, improves cardiac fitness, and improves the functioning of the central nervous system. Muscles, particularly those in the neck and back, tend to react to stress by becoming tight and rigid. This tightness then results in symptoms such as tension headaches and backaches. Exercise promotes cardiac fitness, which improves the strength of the heart and circulatory system and improves the resistance of the circulatory system to the demands of stressful events. Exercise also improves the ability to think clearly, as it improves circulation to the brain. Many traditional athletic activities can help reduce stress (although highly competitive events may add stressors of their own). Athletic activities can also have a psychological impact, as they provide social support and distraction from stressful situations.

The importance of social factors in coping with stress was first proposed by John Cassel in 1974. Friends and family can make it possible to cope more effectively with stressful situations. The freedom to express feelings and to gain insight from hearing the problem described from another perspective can improve understanding of the stressor. The opportunity to gain useful information about problem solving and access to economic or material support makes coping with stressful events and circumstances possible. The impact of social support is reflected in research which suggests that a woman with even one relationship with someone in

whom she could confide is 90 percent less likely to suffer from depression than a woman with no close relationships. Family gatherings, recreation, and community activities help to form a social support network which is then available to provide listeners when one needs to talk, advice when one needs to listen, and the tools needed to accomplish the task of coping with stress.

Psychological coping strategies include techniques that change the way one thinks about the stressor or the stress response. Much of the stress response results from one's emotional reaction to events. Cognitive reappraisal and restructuring can help one to think of a stressful event as a positive challenge and can eliminate much of the arousal associated with stress. Imaging techniques are used to help the stressed individual see herself or himself as healthy and as successfully coping with the sources of stress.

Coping can also involve denying that the stressor exists or that it is a problem. Becoming emotionally detached can reduce the harmful effects of stress as physical arousal levels are prevented from increasing in the stressful situation, but this denial can also be harmful if it lasts for a long period of time or if it replaces an attempt to deal with the stressor. Denial of stressful events is seen by many theorists as a major contributor to mental and physical illness.

When considering the many possible approaches to coping with stress, it is important to remember that different individuals and different stressors can make one strategy more effective than another. Each individual will need to explore the options to find the most effective coping strategy.

Applications

Just as the stress response involves a general reaction of the body to a demand, many of the techniques used to cope with stress have an element in common. This common thread can be described as control. If one feels that one is in control of a situation, one is less likely to interpret it as threatening, and therefore stressful. If one learns to control one's thoughts about a stressor or to control one's physical reactions to the stressor, one is more likely to be successful at coping with stress.

Research on the effects of control has included animals and humans and has focused on many different types of control. For example, from what is known about stress, job stress should be related to physical illness, but this is not always found in the research literature. What has been found is that people with both high job demand and a lack of control over their work are more likely to have coronary heart disease.

Some of the earliest research on stress placed monkeys in a problem-solving situation. One monkey could prevent electric shocks from occurring by learning to solve a problem. A second monkey received a shock every time the first monkey did, but could do nothing to prevent the shocks from occurring. At autopsy, the second monkey, with less control over the situation, had more indications of stress-related physiological arousal.

One approach to stress that can give people a feeling of control is to teach them relaxation techniques; these range from meditation to progressive relaxation to biofeedback techniques. One benefit of such techniques is that they reduce or

eliminate the temptation to use medication to reduce stress responses. Progressive relaxation, one form of this training, involves tensing specific muscle groups for a brief period and then allowing that group of muscles to relax before continuing to the next. The tension both focuses attention on the muscle to be relaxed and fatigues the tensed muscle, making relaxation easier.

Biofeedback has been used successfully to reduce the physical tensions and resulting pain often associated with the stress response. Biofeedback uses electronic instruments to make physical changes more observable. Instrumentation which measures physical changes in skin temperature, sweating, muscle tension, and blood pressure has been used to make people more aware of their bodies' functions. With training, the individual can learn to reduce the muscle tension which has been producing headaches or to regulate problems causing gastrointestinal activity.

Perspective and Prospects

Stress has been recognized as contributing to mental and physical health and illness, job satisfaction and dissatisfaction, and the ability to perform well in any setting. From Hans Selye's contributions concerning understanding the general nature of the physiological response to stressors to the research connecting the stress response to illness, stress has become a factor to be considered in a wide variety of life situations.

There have been two major approaches to the problem of coping with stress. One has involved the attempt to describe and define stress responses in the hope of determining the causes and controlling factors. The second approach focuses on the control the symptoms presented to doctors and therapists. Defining stress and the stress response includes not only Selye's physiological definition of the stress response but also cognitive factors such as locus of control. Julian Rotter proposed that behavior in and understanding of situations are determined by the perceived source of events. A person with an internal locus of control will feel that he or she is the determining factor in success or failure in life. The person with an external locus of control is more likely to place the responsibility on fate or luck and to feel that his or her action will not make much difference. These two interpretations of events have a number of implications for coping, as the coping strategy chosen may lead to a more effective or less effective solution to the stressful situation.

An external locus of control may lead to less active participation in coping and to more negative outcomes. An internal locus of control has been related to successful therapy and lower levels of depression, suggesting the use of effective coping strategies. Albert Bandura proposed a similar concept: self-efficacy. Individuals who are high in self-efficacy believe that they can change things by taking action. They are more likely to choose coping strategies which attempt to remove or reduce the influence of the stressor rather than withdrawing or denying that the stressor exists and thereby failing to remove its influence.

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Susan J. Shapiro

See also:

Biofeedback and Relaxation; Post-traumatic Stress; Stress; Stress: Behavioral and Psychological Responses; Stress: Physiological Responses; Stress: Prediction and Control.

STRESS
Physiological Responses

Type of psychology: Stress
Fields of study: Biology of stress; critical issues in stress; stress and illness

The human body contains a number of regulatory mechanisms that allow it to adapt to changing conditions. Stressful events produce characteristic physiological changes that are meant to enhance the likelihood of survival. Because these changes sometimes present a threat to health rather than serving a protective function, researchers seek to determine relations between stressors, their physiological effects, and subsequent health.

Principal terms

FIGHT-OR-FLIGHT RESPONSE: a sequence of physiological changes, described by Walter B. Cannon, that occur in response to threat and prepare the organism to flee from or fight the threat

GENERAL ADAPTATION SYNDROME: a physiological process by which the organism responds to stressors and attempts to reestablish homeostasis; consists of three stages: alarm, resistance, and exhaustion

HOMEOSTASIS: the tendency of the human body to strive toward an optimal or balanced level of physiological functioning

PARASYMPATHETIC NERVOUS SYSTEM: a branch of the nervous system responsible for maintaining or reestablishing homeostasis

STRESS RESPONSE: the physiological, emotional, cognitive, and/or behavioral changes that result from a stressful event, including increased heart rate, anxiety, confused thinking, and/or avoidance behaviors

STRESSOR: any psychological or physical event that produces the physiological, emotional, cognitive, and/or behavioral changes characteristic of a stress response

SYMPATHETIC NERVOUS SYSTEM: a branch of the nervous system that is responsible for activating the fight-or-flight response

Overview

Although the term "stress" is commonly used (if not overused) by the general population to refer to various responses to events that individuals find taxing, the concept involves much more. For centuries, scientific thinkers and philosophers have been interested in learning more about the interactions between the environment (stressful events), emotions, and the body. Much is now known about this interaction, although there is still much left to discover. In the late twentieth century, particularly, much has been learned about how stressful events affect the activity of the body (or physiology); for example, it has been established that these physiological responses to stressors sometimes increase the risk of development or exacerbate a number of diseases. In order best to understand the body's response

to stressful events (or stressors), the general sequence of events and the specific responses of various organ systems must be considered.

Almost all bodily responses are mediated at least partially by the central nervous system: the brain and spinal cord. The brain takes in and analyzes information from the external environment as well as from the internal environment (the rest of the body), and it acts to regulate the activities of the body to optimize adaptation or survival. When the brain detects a threat, a sequence of events occurs to prepare the body to fight or to flee the threat. Walter B. Cannon, in the early twentieth century, was the first to describe this "fight-or-flight" response of the body. It is characterized by generalized physiological activation. Heart rate, blood pressure, and respiration increase to enhance the amount of oxygen available to the tissues. The distribution of blood flow changes to optimize efficiency of the tissues most needed to fight or flee: Blood flow to the muscles, brain, and skin increases, while it decreases in the stomach and other organs less important for immediate survival. Increased sweating and muscle tension help regulate the body's temperature and enhance movement if action is needed. Levels of blood glucose and insulin also increase to provide added energy sources, and immune function is depressed. Brain activity increases, resulting in enhanced sensitivity to incoming information and faster reactions to this information.

The physiological changes produced by exposure to chronic stress can contribute to diseases such as high blood pressure, peptic ulcers, and cardiovascular disorders. (Digital Stock)

Taken together, these physiological changes serve to protect the organism and to prepare it to take action to survive threat. They occur quite rapidly and are controlled by the brain through a series of neurological and hormonal events. When the brain detects a threat (or stressor), it sends its activating message to the rest of the body through two primary channels, the sympathetic nervous system (SNS) and the pituitary-adrenal axis. The SNS is a branch of the nervous system that has multiple, diffuse, neural connections to the rest of the body. It relays activating messages to the heart, liver, muscles, and other organs that produce the physiological changes already described. The sympathetic nervous system also stimulates the adrenal gland to secrete two hormones, epinephrine and norepinephrine (formerly called adrenaline and noradrenaline), into the bloodstream. Epinephrine and norepinephrine further activate the heart, blood vessels, lungs, sweat glands, and other tissues.

Also, the brain sends an activating message through its hypothalamus to the pituitary gland, at the base of the brain. This message causes the pituitary to release hormones into the bloodstream that circulate to the peripheral tissues and activate them. The primary "stress" hormone released by the pituitary gland is adrenocorticotropic hormone (ACTH), which in turn acts upon the adrenal gland to cause the release of the hormone cortisol. The actions of cortisol on other organs cause increases in blood glucose and insulin, among many other reactions.

In addition to isolating these primary stress mechanisms, research has demonstrated that the body secretes naturally occurring opiates—endorphins and enkephalins—in response to stress. Receptors for these opiates are found throughout the body and brain. Although their function is not entirely clear, some research suggests that they serve to buffer the effects of stressful events by counteracting the effects of the SNS and stress hormones.

One can see that the human body contains a very sophisticated series of mechanisms that have evolved to enhance survival. When stressors and the subsequent physiological changes that are adaptive in the short run are chronic, however, they may produce long-term health risks. This idea was first discussed in detail in the mid-twentieth century by physiologist Hans Selye, who coined the term "general adaptation syndrome" to describe the body's physiological responses to stressors and the mechanisms by which these responses might result in disease. Selye's general adaptation syndrome involves three stages of physiological response: alarm, resistance, and exhaustion. During the alarm stage, the organism detects a stressor and responds with SNS and hormonal activation. The second stage, resistance, is characterized by the body's efforts to neutralize the effects of the stressor. Such attempts are meant to return the body to a state of homeostasis, or balance. (The concept of homeostasis, or the tendency of the body to seek to achieve an optimal, adaptive level of activity, was developed earlier by Walter Cannon.) Finally, if the resistance stage is prolonged, exhaustion occurs, which can result in illness. Selye referred to such illnesses as diseases of adaptation. In this category of diseases, he included hypertension, cardiovascular disease, kidney disease, peptic ulcer, hyperthyroidism, and asthma.

Selye's general adaptation syndrome has received considerable attention as a

useful framework within which to study the effects of stressors on health, but there are several problems with his theory. First, it assumes that all stressors produce characteristic, widespread physiological changes that differ only in intensity and duration. There is compelling evidence, however, that different types of stressors can produce very different patterns of neural and hormonal responses. For example, some stressors produce increases in heart rate, while others can actually cause heart rate deceleration. Thus, Selye's assumption of a nonspecific stress response must be questioned. Also, Selye's theory does not take into account individual differences in the pattern of response to threat. Research during the later twentieth century has demonstrated that there is considerable variability across individuals in their physiological responses to identical stressors. Such differences may result from genetic or environmental influences. For example, some studies have demonstrated that normotensive offspring of hypertensive parents are more cardiovascularly responsive to brief stressors than individuals with normotensive parents. Although one might conclude that the genes responsible for hypertension have been passed on from the hypertensive parents, these children might also have different socialization or learning histories that contribute to their exaggerated cardiovascular reactivity to stressors. Whatever the mechanism, this research highlights the point that individuals vary in the degree to which they respond to stress and in the degree to which any one organ system responds.

Applications

Coinciding with the scientific community's growing acknowledgment that stressful events have direct physiological effects, much interest has developed in understanding the relations between these events and the development and/or maintenance of specific diseases. Probably the greatest amount of research has focused on the link between stress and heart disease, the primary cause of death in the United States. Much empirical work also has focused on gastrointestinal disorders, diabetes, and pain (for example, headache and arthritis). Researchers are beginning to develop an understanding of the links between stress and immune function. Such work has implications for the study of infectious disease (such as flu and mononucleosis), cancer, and acquired immunodeficiency syndrome (AIDS).

A number of types of research paradigms have been employed to study the effects of stressors on health and illness. Longitudinal studies have identified a number of environmental stressors that contribute to the development or exacerbation of disease. For example, one study of more than four thousand residents of Alameda County, California, spanning two decades, showed that a number of environmental stressors such as social isolation were significant predictors of mortality from all causes. Other longitudinal investigations have linked stressful contexts such as loud noise, crowding, and low socioeconomic status with the onset or exacerbation of disease.

A major drawback of such longitudinal research is that no clear conclusions can be made about the exact mechanism or mechanisms by which the stressor had its impact on health. Although it is possible, in the Alameda County study, that the relationship between social isolation and disease was mediated by the SNS/hormo-

nal mechanisms already discussed, individuals who are isolated also may be less likely to engage in health care behaviors such as eating healthy diets, exercising, and maintaining preventive health care. Thus, other research paradigms have been used to try to clarify the causal mechanisms by which stressors may influence particular diseases. For example, laboratory stress procedures are used by many scientists to investigate the influence of brief, standardized stressors on physiology. This type of research has the advantage of being more easily controlled. That is, the researcher can manipulate one or a small number of variables (for example, noise) in the laboratory and measure the physiological effects. These effects are then thought to mimic the physiological effects of such a variable in the natural environment.

This research primarily is conducted to ask basic questions about the relations between stressors, physiology, and subsequent health. The findings also have implications, however, for prevention and intervention. If a particular stressor is identified that increases risk of a particular disease, prevention efforts could be developed to target the populations exposed to this stressor. Prevention strategies might involve either modifying the stressor, teaching people ways to manage more effectively their responses to it, or both.

During the last two or three decades, applied researchers have attempted to develop intervention strategies aimed at controlling the body's physiological responses to stress. This work has suggested that a number of stress management strategies can actually attenuate physiological responsivity. Most strategies teach the individual some form of relaxation (such as deep muscle relaxation, biofeedback, hypnosis, or meditation), and most of this work has focused on populations already diagnosed with a stress-related disease, such as hypertension, diabetes, or ulcer. The techniques are thought to produce their effects by two possible mechanisms: lowering basal physiological activation (or changing the level at which homeostasis is achieved) and/or providing a strategy for more effectively responding to acute stressors to attenuate their physiological effects. Research has not proceeded far enough to make any statements about the relative importance of these mechanisms. Indeed, it is not clear whether either mechanism is active in many of the successful intervention studies. While research does indicate that relaxation strategies often improve symptoms of stress-related illnesses, the causal mechanisms of such techniques remain to be clarified.

Perspective and Prospects

The notion that the mind and body are connected has been considered since the writings of ancient Greece. Hippocrates described four bodily humors (fluids) that he associated with differing behavioral and psychological characteristics. Thus, the road was paved for scientific thinkers to consider the interrelations between environment, psychological state, and physiological state (that is, health and illness). Such considerations developed most rapidly in the twentieth century, when advancements in scientific methodology permitted a more rigorous examination of the relationships among these variables.

In the early twentieth century, Walter B. Cannon was the first to document and

discuss the "fight-or-flight response" to threatening events. He also reasoned that the response was adaptive, unless prolonged or repeated. In the 1940's, two physicians published observations consistent with Cannon's of an ulcer patient who had a gastric fistula, enabling the doctors to observe directly the contents of the stomach. They reported that stomach acids and bleeding increased when the patient was anxious or angry, thus documenting the relations between stress, emotion, and physiology. Shortly after this work was published, Hans Selye began reporting his experiments on the effects of cold and fatigue on the physiology of rats. These physical stressors produced enlarged adrenal glands, small thymus and lymph glands (involved in immune system functioning), and increased ulcer formation.

Psychiatrists took this information, along with the writings of Sigmund Freud, to mean that certain disease states might be associated with particular personality types. Efforts to demonstrate the relationship between specific personality types and physical disease endpoints culminated in the development of a field known as psychosomatic medicine. Research, however, does not support the basic tenet of this field, that a given disease is linked with specific personality traits; thus, psychosomatic medicine has not received much support from the scientific community. The work of clinicians and researchers in psychosomatic medicine paved the way for late twentieth century conceptualizations of the relations between stress and physiology. Most important, biopsychosocial models that view the individual's health status in the context of the interaction between his or her biological vulnerability, psychological characteristics, and socio-occupational environment have been developed for a number of physical diseases.

Future research into individual differences in stress responses will further clarify the mechanisms by which stress exerts its effects on physiology. Once these mechanisms are identified, intervention strategies for use with patients or for prevention programs for at-risk individuals can be identified and implemented. Clarification of the role of the endogenous opiates in the stress response, for example, represents an important dimension in developing new strategies to enhance individual coping with stressors. Further investigation of the influence of stressors on immune function should open new doors for prevention and intervention, as well.

Much remains to be learned about why individuals differ in their responses to stress. Research in this area will seek to determine the influence of genes, environment, and behavior on the individual, elucidating the important differences between stress-tolerant and stress-intolerant individuals. Such work will provide a better understanding of the basic mechanisms by which stressors have their effects, and should lead to exciting new prevention and intervention strategies that will enhance health and improve the quality of life.

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See also:

Abnormality: Biomedical Models; Biofeedback and Relaxation; Psychosomatic Disorders; Stress; Stress: Behavioral and Psychological Responses; Stress: Coping Strategies; Stress: Prediction and Control.

STRESS
Prediction and Control

Type of psychology: Stress
Fields of study: Coping

Foreknowledge of stress and various forms of control over potential or pending stressors affects the negative psychological and physiological effects of those stressors. The ability to predict and exercise some form of control over stressors is a useful and necessary addition to effective coping repertoires.

Principal terms

AVERSIVE: unpleasant, threatening, and/or painful
COGNITIVE: of or relating to thoughts or ideas
CONDITIONED: learned through the process of conditioning by association or through trial and error
HYPOTHESIS: a theoretical assumption or guess that is subject to proof or disproof
NONCONTINGENCY: nondependency or absence of any relationship between two variables
PSYCHOPHARMACOLOGICAL: pertaining to chemicals or drugs that have effects on mental states
STIMULUS: any action or situation that elicits a response; can be internal (thoughts, feelings) or external (people, events, sounds)
STRESSOR: a stimulus that produces a state of psychological or physiological tension

Overview

Stress is a ubiquitous phenomenon in human life. Though it may in some cases be beneficial, attention is ordinarily drawn to its negative effects. In that regard, stress is both a psychological and physiological response to aversive life events, situations, and stimuli, as well as to an accumulation of or overexposure to mundane stimuli or common hassles. Because of the primary or secondary role of stress in most medical and psychological pathology, stress management and coping exact considerable attention from both professionals and laypeople.

With rare exceptions, everyone faces—at some time or another in their lives—the necessity of experiencing a stressor that is unavoidable, such as the need to leave home for the first time, taking a crucial test for which one is unprepared, or undergoing a painful or life-threatening medical procedure. Most people would agree that being able to predict the onset and intensity of such stressors seems to make them somehow more tolerable. Prediction allows people to make defensive preparations, to develop new coping methods, and to brace themselves for the ordeal to come. As a matter of fact, prediction is apparently so important that humans would prefer to suffer a painful stressor immediately rather than tolerate an uncertain postponement.

In two 1966 studies, Pietro Badia and his colleagues found that humans given a choice of being shocked immediately or with a variable amount of delay showed a distinct preference for getting it over with immediately. If humans or animals must tolerate a delay in experiencing something stressful and unpleasant, it would appear that both prefer some sort of signal preceding and announcing that stressor. Badia and his colleagues demonstrated, for example, that rats not only preferred signaled shocks but also were willing to tolerate longer and more intense shocks, providing they were announced.

According to Russell G. Geen, two hypotheses have been proposed to account for the signal preferences. The first is the preparatory-response hypothesis, which suggests that the signal sets off automatic or conditioned anticipatory defense reactions, making the stressor more tolerable. The second is the safety-signal hypothesis, which proposes that the signal makes the intervening time until stressor onset more tolerable. Both hypotheses emphasize the notion that stressor predictability provides people with a sense of control that serves to moderate stress effects.

Humans are able to tolerate life better when they have, or believe they have, a fair amount of control over their day-to-day lives. Knowing what is happening is preferable to being in the dark, having a strategy or defense ready is preferable to being unprepared, and being able to avoid or terminate a stressor is better than sitting there and suffering. In 1973, James R. Averill described behavioral, cognitive, and decisional methods of stress control. He first delineated two kinds of behavioral control: self-regulation and stressor modification. With self-regulation, people can choose to self-administer the inescapable stressor, or they can choose when and/or where to suffer the stressor. Research has shown that humans prefer to self-administer painful stimuli such as electric shocks, a finding that mirrors the relatively common tendency for people to want, for example, to remove their own splinter.

Stressor modification, on the other hand, involves being able to escape, avoid, or reduce the aversiveness of the stressor. A number of studies have demonstrated, for example, that subjects who know that they have the means to terminate a stressor suffer less physical stress than subjects who believe that they have no control. Note that it is the individual's belief in his or her ability to control and not the actual exercise of control that appears to reduce the stress.

Frequently, however, people are powerless to self-regulate or modify a stressor. In those cases, information about the stressor can provide people with a sense of control through the use of cognitive processes. Cognitive processes can moderate or minimize the effects of stressors in several possible ways. For example, detailed prescience of a stressor allows the individual to focus on less harmful or threatening aspects of the stressor or to think about the stressor differently (to see it as a challenge rather than a threat). In addition, one can tolerate a stressor better by knowing the nature of the discomfort the stressor will cause and how the stressor will materialize. Research is generally supportive of the idea that having information about an otherwise uncontrollable stressor allows people to rid themselves of uncertainty about the stressor and to eliminate any stress resulting from that uncertainty.

Decision control has to do with the individual's perception that he or she is free to choose between alternative stressors. Despite how distasteful any two or three alternative aversive events may be, the freedom to choose between them tends to reduce the overall level of stress. Having choices—even unpleasant choices—gives one a sense of control and acts to moderate stress. On the other hand, the effects of a perceived loss or absence of control can result in reactance (a struggle to gain control) or, at the other extreme, a form of learned helplessness (a surrender to the stressor and all of its effects).

Applications

Stress prediction and control lends itself to a wide variety of mundane applications as well as to broader social and individual issues, such as crowding, learned helplessness, and individual differences in stress proneness.

In the physician's or dentist's office, many things take place that are stressful to the uninformed or timid soul. For example, an individual who is about to undergo his or her first root canal procedure may find the pending event threatening and consequently stressful. Stress in this case results from uncertainty about the qualitative effects of the procedure, expectations of pain and discomfort, and feelings of lack of control. Technology and training provide the contemporary dentist with the means to minimize pain and discomfort and to describe accurately the sensations associated with various aspects of the procedure. Such information provides the basis for cognitive control and a reduction in the overall level of stress. When behavioral control is impossible, information can become the instrumentality of control.

In general, humans seem to have a need for control, even in the absence of clearly identifiable stressors. A perceived lack of control in the face of ambient nonnoxious stimuli can also be stressful. How the individual responds to perceived lack of control forms the basis for the discussion of such phenomena as crowding, learned helplessness, and the Type A coronary stress-prone pattern.

As the earth's population increases, the effect of crowding on human behavior becomes a matter of increasing concern. There is a prevalent—but not universally held—view that crowding is stressful. There is, however, no consensus about the reasons for the stressfulness of crowding.

Those who study crowding generally agree that density is a necessary, but not sufficient, factor in crowding. Crowding is therefore regarded as a subjective aversive feeling that may or may not be related to objective density. Two hypotheses tie density to crowding. The first hypothesis suggests that feelings of crowding happen when density is perceived to constrain behavior, such as when heavy freeway traffic blocks freedom of movement. This loss of freedom is a threat to behavioral and decisional control that results in negative affect or stress.

The second hypothesis is that the individual feels crowded when the near presence of others is unpleasantly arousing or overstimulating. When overaroused, the individual suffers impaired coping and decision-making capabilities. Again, the perception of crowding is subjective and is often mitigated by situational or cultural norms. For example, the density one comfortably sustains at the well-

attended football game would likely be intolerable in one's own living room. Thus situational density norms moderate the feeling of loss of control, which, as suggested earlier, tends to be inherently stressful.

Elevators provide natural settings for studying the effects of crowding. There are many behavioral indicators of the increasing discomfort people suffer as the elevator fills to capacity. People stand facing the door with eyes cast downward, fixed straight ahead, or focused on the elevator floor indicator as if exercising some form of psychokinesis. Occupants generally attempt to maintain some semblance of interpersonal spacing, however crowded the elevator becomes. Only the individuals standing by—and commanding—the control panels manifest something different in the way of behavior as they press the buttons. Indeed, in 1978, Judith Rodin and her colleagues found that elevator occupants who stand away from elevator controls report feeling more crowded, more aroused, and less in control.

Generally speaking, when individuals perceive a loss of control in the face of an imminent stressor, there is an attempt to adjust or cope with the stressor (for example, to reestablish control by running away from it). There are times, however, when the means of regaining control is not manifest—when there is no apparent way to cope. In the absence of any control, the individual may develop a sense of helplessness that causes him or her to suffer the stressor and its effects. Sometimes after repeated instances of an inability to control outcomes, the individual may develop the belief that he or she is incapable of coping, even in cases where the means of control exist. This generalization of one's inability to control and to suffer whatever the stressor has to hand out is called "learned helplessness."

That learned helplessness exists is probably not arguable. Depressed patients often manifest an unreasonable resignation to whatever might go wrong. Some people attribute the passivity of some Jews in Nazi extermination camps to the phenomenon of learned helplessness. Some evidence, however, tends to suggest that learned helplessness in the face of stressors of any kind is not so much the result of noncontingency between behavior and outcomes as it is a function of personality and attributional style.

Some humans carry on a mighty struggle for control of themselves and their surroundings, while others manifest no such need. People who manifest the competitive, hostile, impatient, and aggressive characteristics that typify the Type A coronary stress-prone pattern seem, according to David Glass, to react to threats to their control and freedom with vigorous actions to regain their sense of command. If the Type A person's struggle to regain control is unsuccessful, frustration, exhaustion, and a drastic decrease in attempts to control will follow. Repeated failure at attempts to control robs Type A people of their motivation and renders them helpless.

Perspective and Prospects

According to Charles Spielberger, the term "stress" is a Latin derivative that was "first used during the 17th century to describe distress, oppression, hardship, and adversity." In the eighteenth and nineteenth centuries, the meaning of stress changed to that of some pressure or force acting on a physical object or person

resulting in some form of strain, possibly the basis for the colloquial phrase "stress and strain." During the nineteenth century, speculation about the connection between stress and illness began, but it was not until the early twentieth century that professionals, such as the distinguished Canadian physician Sir William Osler, began to make the connection between stress, worry, and heart disease.

The massive contemporary interest in stress, its ill effects, and its management, including prediction and control, found its impetus in the work of physician and researcher, Hans Selye. In 1936, Selye described a systematic and progressive physiological reaction to unremitting stressors that he called the general adaptation syndrome (GAS) or the biologic stress syndrome. Selye's work highlights the human body's innate defensive response to perceived threats, whether physical or psychological, internal or external.

Much has been learned about the details of the physiological stress reaction since 1936, especially about the role of the sympathetic nervous system and hormones. This acquired knowledge has led to the discovery of psychopharmacological agents (for example, tranquilizers) that control, relieve, or combat the physical and mental effects of stress. Such remedies, however, require medical prescription and supervision, do not eliminate or affect stress at its origins, and provide only symptomatic relief.

Increasing attention has therefore been given to nonchemical means of controlling or eliminating stress and its effects. Such means include relaxation techniques, lifestyle changes, biofeedback techniques, and the development of behavioral, cognitive, and decisional controls over stressors. Researchers have also investigated other possible influential factors, such as individual differences in stress vulnerability or proneness as well as individual differences in stress perception.

Stress prediction and control as a means of softening or eliminating stress will be a continuing subject of research and individual stress management development for the foreseeable future. The effects of relaxation techniques and stress prediction and control on stress effects accentuate the human potential for self-prevention, control, and healing of stress effects. Maximizing and mastering this human potential has highly beneficial portents for health, happiness, and the lowering of health care costs.

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See also:

Anxiety Disorders; Biofeedback and Relaxation; Stress; Stress: Behavioral and Psychological Responses; Stress: Physiological Responses; Stress: Prediction and Control.

Substance Abuse

Type of psychology: Psychopathology
Fields of study: Biological treatments; nervous system; substance abuse

Substance abuse is the use of any substance in amounts or frequencies that violate social, personal, or medical norms for physical or behavioral health; these substances are often addictive.

Principal terms

DEPENDENCE: the presence of withdrawal signs when use of a substance is discontinued

HALLUCINOGENS: drugs that can alter perception, including LSD, PCP, peyote, psilocybin, and possibly marijuana

INHALANTS: volatile drugs, including glue, gasoline, propellants, and some anesthetics

OPIATES: substances derived from the opium poppy, including morphine, heroin, codeine, and Demerol

SEDATIVES/HYPNOTICS: nonopiate substances that cause a slowing of behavioral arousal, including alcohol, tranquilizers, and barbiturates

SELF-MEDICATION: a theory that substance abuse is a form of self-treatment in order to alleviate measured or perceived pain/dysphoria

STIMULANTS: drugs that cause behavioral and/or physiological stimulation, including amphetamine, cocaine, and their respective derivatives; caffeine; nicotine; and some antidepressants

TOLERANCE: the need for greater amounts of a substance over time in order to achieve a previous effect

Causes and Symptoms

Substance abuse is studied in psychology from personality, social, and biological perspectives. Social and personality studies of the substance abuser have produced theories with four principal themes: The abuser displays inability to tolerate stress, immaturity in the form of inability to delay gratification, poor socialization, and/or environmental problems. Biological theories of substance abuse maintain that at least two major factors can result in abusive disorders: the need to relieve some form of pain and the seeking of pleasure or euphoria. Pain is broadly defined as any feeling of dysphoria. Because both pain and euphoria can be produced by psychosomatic or somatopsychic events, these two biological categories can subsume most of the stated nonbiological correlates of substance abuse.

There are several forms of substance abuse, including chronic abuse, intermittent abuse (sprees), active abuse that involves drug seeking, and passive abuse that involves unintentional repeated exposure to drugs. In each case, abuse is determined by a physical or psychological reaction or status that violates accepted professional or personal health norms.

Substance abuse may or may not involve the development of tolerance or physical dependence and may or may not result in easily detectable symptomatology. Tolerance, the need for greater amounts or more frequent administration of a substance, can develop over time or can be acute. In addition, the amount of a substance needed to produce tolerance varies widely among drugs and among individuals. Similarly, the withdrawal signs that indicate dependence need not be the same among individuals and are not always obvious, even to the abuser. Thus, an individual can be an "invisible" abuser.

There are several types of abused substances, and some of these are not typically viewed as problematic. Major categories include sedatives/hypnotics, such as alcohol; opiates, such as heroin; stimulants, including cocaine and caffeine; inhalants, such as nitrous oxide ("laughing gas"); and hallucinogens, including phencyclidine (PCP or "angel dust"). Food is an example of a substance not usually considered a substance of abuse, but it has definite abuse potential.

The experience of pain or the seeking of euphoria as causes of substance abuse can be measured physically or can be perceived by the individual without obvious physical indicators. The relative importance of pain and euphoria in determining the development and maintenance of substance abuse requires consideration of the contributions of at least five potential sources of behavioral and physical status: genetic predisposition, dysregulation during development, dysregulation from trauma at any time during the life span, the environment, and learning. Any of these can result in or interact to produce the pain or feelings of euphoria that can lead to substance abuse.

The key commonality in pain-induced substance abuse is that the organism experiences pain that it does not tolerate. Genetic predisposers of pain include inherited diseases and conditions that interfere with normal pain tolerance. Developmental dysregulations include physical and behavioral arrests and related differences from developmental norms. Trauma from physical injury or from environmental conditions can also result in the experience of pain, as can the learning of a pain-producing response.

Several theories of pain-induced substance abuse can be summarized as self-medication theories. In essence, these state that individuals abuse substances in order to correct an underlying disorder that presumably produces some form of dysphoria. Self-medication theories are useful because they take into account the homeostatic (tendency toward balance) nature of the organism and because they include the potential for significant individual differences in problems with pain.

Relief from pain by itself does not account entirely for drug use that goes beyond improvement in health or reachievement of normal status and certainly cannot account entirely for drug use that becomes physically self-destructive (an exception occurs when pain becomes more motivating than the need to preserve life). Thus, the desire for euphoria is also studied. This type of substance abuse can be distinguished from the possible pleasure produced by pain relief because it does not stop when such relief is achieved.

Euphoria-induced substance use, or pleasure seeking, is characteristic of virtually all species tested. The transition from pleasurable use to actual abuse is also

widespread, but often limited in other species when life-threatening conditions are produced. Some theorists have proposed that pleasure seeking is an innate drive not easily kept in check even by socially acceptable substitutes. Thus, euphoria-induced substance abuse is conceived of as pleasure seeking gone awry. Other theorists believe that euphoria-induced substance abuse is related to biological causes such as evolutionary pressure. For example, some drug-abuse researchers believe that organisms that could eat rotten, fermented fruit (partly alcohol) may have survived to reproduce when others did not.

Laboratory studies of the biological bases of substance abuse involve clinical (human) and preclinical (animal) approaches. Such research has demonstrated that there are areas of the brain that can provide powerful feelings of euphoria when stimulated, indicating that the brain is primed for the experience of pleasure. Direct electrical stimulation of some areas of the brain, including an area first referred to as the medial forebrain bundle, produced such strong addictive behaviors in animals that they ignored many basic drives including those for food, water, mating, and care of offspring.

Later research showed that the brain also contains highly addictive analgesic and euphoriant chemicals that exist as a normal part of the neural milieu. Thus, the brain is also predisposed to aid in providing relief from pain and has coupled such relief in some cases with feelings of euphoria. It is not surprising, therefore, that substance abuse and addictive behaviors can develop so readily in so many organisms.

Treatment and Therapy

The effects of typical representatives of the major categories of abused substances can be predicted. Alcohol, a sedative/hypnotic, can disrupt several behavioral functions. It can slow reaction time, movement, and thought processes and can interfere with needed rapid eye movement (REM) sleep. It can also produce unpredictable emotionality, including violence. Abusers of alcohol develop tolerance and dependence, and withdrawal can be life-threatening. Heroin, an opiate, has analgesic (pain-killing) and euphoriant effects. It is also highly addictive, but withdrawal seldom results in death. Marijuana, sometimes classified as a sedative, sometimes as a hallucinogen, has many of the same behavioral effects as alcohol. Stimulants vary widely in their behavioral effects. Common to all is some form of physiological and behavioral stimulation. Some, such as cocaine and the amphetamines (including crystal methamphetamine, or "ice"), are extremely addictive and seriously life-threatening and can produce violence. Others, such as caffeine, are relatively mild in their euphoriant effects. Withdrawal from stimulants, especially the powerful forms, can result in profound depression. Hallucinogens are also a diverse group of substances that can produce visual, auditory, tactile, olfactory, or gustatory hallucinations, but most do so in only a small percentage of the population. Some, such as PCP, can produce violent behavior, while others, such as lysergic acid diethylamide (LSD), are not known for producing negative emotional outbursts. Inhalants usually produce feelings of euphoria, but they are seldom used by individuals beyond the adolescent years.

It is noteworthy that some of the pharmacological effects of very different drugs are quite similar. Marijuana and alcohol affect at least three of the same brain biochemical systems. Alcohol can become a form of opiate in the brain following some specific chemical transformations. These similarities raise an old question in substance abuse: Is there a fundamental addictive mechanism common to everyone that differs only in the level and nature of expression? Older theories of drug-abuse behavior approached this question by postulating the "addictive personality," a type of person who would become indiscriminately addicted as a result of his or her personal and social history. With advances in neuroscience have come theories concerning the possibility of an "addictive brain," which refers to a neurological status that requires continued adjustment provided by drugs. This is a modification of self-medication theories.

An example of the workings of the addictive brain might be a low-opiate brain that does not produce normal levels of analgesia or normal levels of organismic and behavioral euphoria (joy). The chemical adjustment sought by the brain might be satisfied by use or abuse of any drug that results in stimulation of the opiate function of the brain. As discussed above, several seemingly unrelated drugs can produce a similar chemical effect. Thus, the choice of a particular substance might depend both on brain status and on personal or social experience with the effects and availability of the drug used.

The example of the opiate-seeking brain raises at least two possibilities for prevention and treatment, both of which have been discussed in substance-abuse literature: reregulation of the brain and substitution. So far, socially acceptable substitutes or substitute addictions offer some promise, but reregulation of the dysregulated brain is still primarily a hope of the future. An example of a socially acceptable substitute might be opiate production by excessive running, an activity that can produce some increase in opiate function. The success of such a substitution procedure, however, depends upon many variables that may be quite difficult to predict or control. The substitution might not produce the required amount of reregulation, the adjustment might not be permanent, and tolerance to the adjustment might develop. There are a host of other possible problems.

Perspective and Prospects

Use and probable abuse of psychoactive substances date from the earliest recorded history and likely predate it. Historical records indicate that many substances with the potential for abuse were used in medicinal and ceremonial or religious contexts, as tokens in barter, for their euphoriant properties during recreation, as indicators of guilt or innocence, as penalties, and in other practices.

Substance abuse is widespread in virtually all countries and cultures, and it can be extremely costly, both personally and socially. There is no doubt that most societies would like to eliminate substance abuse, but current practices have been relatively unsuccessful in doing so. It is obvious that economic as well as social factors contribute both to abusive disorders and to the laws regulating substance use, and possibly create some roadblocks in eliminating abuse.

In psychology, the systematic and popular study of substance abuse became

most extensive during the period when such abuse was most popular, the 1960's and 1970's. Research into psychological, social, environmental, therapeutic, and some biological aspects of abuse proliferated during these years, and the reasons proposed to explain abuse disorders were almost as numerous as the authors proposing them. During the early 1980's, drug-abuse research experienced a somewhat fallow period, but with discoveries of the brain mechanisms involved in many disorders, a resurgence has occurred. Many disorders previously thought to be the result of nonbiological factors are now known to have strong neural determinants. Both psychosomatic and somatopsychic events affect the nervous system, and the resurgence of brain-oriented research reflects this understanding.

Future research on substance abuse is likely to focus on more of the biological determinants and constraints on the organism and to try to place substance-abuse disorders more in the contexts of biological self-medication and biological euphoria. Many people erroneously consider biological explanations of problematic behaviors to be an excuse for such behaviors, not an explanation. In fact, discoveries regarding the neural contributions to such behaviors are the basis on which rational therapies for such behaviors can be developed. Recognizing that a disorder has a basis in the brain can enable therapists to address the disorder with a better armamentarium of useful therapeutic tools. In this way, simple management of such disorders can be replaced by real solutions to the problems created by substance abuse.

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See also:

Addictive Personality and Behaviors; Alcoholism; Codependent Personality; Depression; Psychoactive Drug Therapy; Suicide.

SUICIDE

Type of psychology: Psychopathology; stress
Fields of study: Anxiety disorders; critical issues in stress; depression; substance abuse

Suicide is the deliberate taking of one's own life, usually the result of a mental disorder, although sometimes deliberated in the face of life-threatening physical illness.

Principal terms

"NO SUICIDE" CONTRACT: an agreement, verbally or in writing, that a suicidal person will not act on these urges

PSYCHOSOMATIC: referring to physical symptoms caused by psychological problems

RATIONAL SUICIDE: suicide to avoid suffering when there is no underlying cognitive or psychiatric disorder

RITUAL SUICIDE: a formal, ceremonial, and proscribed form of suicide performed for social reasons in Japanese history

SEROTONIN: an abundant chemical nerve signal in the brain which is involved in modulating aggression

SUICIDE CLUSTER: the occurrence of several suicides immediately following a much-publicized suicide

SUICIDE GESTURE: a superficial suicidal action in which the intention is not to die but to solicit help

Causes and Symptoms

Suicide is the deliberate taking of one's own life. Most often, suicidal individuals are trying to avoid emotional or physical pain that they believe they cannot bear. Suicide is seen as a solution to an otherwise insoluble problem. Each year, there are about 30,000 suicides in the United States, with 200,000 family survivors. Women attempt suicide more often than men, but men complete suicide more often than women because men tend to use more lethal means, such as a gun. Adolescents and the elderly are two high-risk groups.

When an individual contemplates suicide to avoid the physical pain of a terminal illness and does not have a mental disorder, that form of suicidal thought is called "rational" suicide. This does not imply that this form of suicide is appropriate, moral, or legal but merely that the suicidal thoughts do not arise from a mental disorder (nonrational). Social views on rational suicide vary by culture. For example, many Dutch people consider rational suicide to be acceptable, whereas most Americans do not.

Most suicidal people encountered by physicians, psychologists, social workers, and other mental health professionals experience suicidal thoughts as a result of a mental disorder. The suicidal thoughts and impulses are seen as symptoms of the

Possible Warning Signs for Suicide

- verbal threats such as "You'd be better off without me" or "Maybe I won't be around anymore"
- expressions of hopelessness and/or helplessness
- previous suicide attempts
- daring and risk-taking behavior
- personality changes (such as withdrawal, aggression, moodiness)
- depression
- giving away prized possessions
- lack of interest in the future

underlying disorder and require treatment just as any other symptom. The treatment may involve protecting the person against his or her suicidal actions, even to the point of involuntary commitment to a mental hospital.

The rationale behind society's willingness temporarily to deny suicidal individuals' usual civil rights by involuntary commitment is that they are considered to be not "acting in their right mind" by virtue of their mental illness. Thus, they deserve the protection of society until their illness is treated. In fact, suicidal thoughts usually do abate when suicidal patients are treated. The vast majority of these individuals are appreciative afterward; they are glad that they were prevented from killing themselves, as they no longer wish to do so.

The most common mental illness that causes suicidal thoughts is depression. In fact, suicidal thoughts are considered to be a symptom of clinical depression. Other mental disorders associated with suicidal ideation include panic disorders, schizophrenia, alcoholism and other substance abuse disorders, and certain personality disorders.

Although suicide may occur at any time of the year, there is a seasonal variation in its peak incidence. Suicides are most common in both men and women in May; women have a second peak around October and November. This seasonal variation may be attributable to seasonal differences in the incidence of depression.

Why people commit suicide appears to have a multifactorial etiology. There are biological, psychological, and social factors that interact in a complex way to contribute to the causes of suicide in a given individual.

These biological factors include genetic contributions to the development of mental disorders such as clinical depression. In addition, studies have shown that suicidal people have an abnormality in a biochemical nerve communication system within the brain. This system involves a common neurotransmitter, serotonin, which is released at the end of one nerve, travels across a gap to the adjacent nerve, and attaches to that nerve. When the serotonin attaches to the adjacent nerve at a specialized receptor site, it initiates changes within the nerve. In this manner, one nerve communicates with its neighbors. In suicidal patients, the metabolites of serotonin that are found in spinal fluid are present in unusually low quantities. Therefore, it is assumed that inadequate amounts of serotonin exist in the brain at those times. Serotonin is thought to be involved in those areas of the brain that control aggression. Low serotonin levels may increase aggressive urges. In a depressed patient, the aggression is turned inward and the person has thoughts of taking his or her own life.

There is also evidence, although not as strong, that low levels of another neurotransmitter, dopamine, may predispose an individual to suicide. The simple

Studies show that women who attempt suicide are more likely to choose nonviolent and less lethal methods, such as pills, rather than violent and lethal methods, such as guns. (PhotoDisc)

loss of brain cell mass also increases the risk of suicide. This loss occurs with many forms of dementia and to a minor degree from normal aging. It is known that the elderly have an increased risk of completed suicide.

Alcohol and addictive drugs may also cause suicidal ideation. Such thoughts may occur while the individual is intoxicated or during withdrawal. Paradoxically, suicidal thoughts may also arise while the patient is taking antidepressant medications. Fortunately, this side effect is uncommon, arising in approximately 1.5 to 6.5

percent of patients. It does not appear that any one antidepressant is more likely to cause this reaction than another.

Psychological factors contributing to suicide include a depressed and/or anxious mood, hopelessness, and a loss of normal pleasure in life activities. Chronically depressed people often have diminished problem-solving skills during periods of depression and can see no way out of their difficulties; suicide is seen as the only solution. There are also personality characteristics that contribute to suicide. In women, borderline personality disorder is often associated with suicide attempts. This disorder is characterized by widely fluctuating moods, rages, feelings of emptiness or boredom, and unstable relationships.

The social factors involved in suicide include cultural acceptance or rejection of suicide. Japanese people have accepted ritual suicide within their culture and sanction suicide as a response to a severe loss of face or social esteem. The Dutch government has legalized rational suicide, while American society generally has a more negative view of the suicide act. Other social factors that increase the likelihood of suicide include social instability, divorce, unemployment, immigration, and exposure to violence as a child. In the United States, European Americans commit suicide more often than African Americans. Native Americans have a high incidence of suicide. In general, good social support reduces the risk of suicide.

Some patients engage in suicidal gestures; that is, they say they want to kill themselves and take actions such as swallowing some pills or superficially cutting their wrists, but there is no real intention to die. They act this way as a cry for help. For some, this may be the only way to receive attention for what troubles them. Unfortunately, the suicide gesture may go awry and unintended death may occur. Anyone who speaks of suicide or engages in what may appear to be a gesture should be taken seriously.

Most people who are suicidal have ambivalent feelings: Part of them wants to die, part does not. This is one of the reasons that the majority of suicidal people tell others of their intention in advance of their attempts. Most have visited their personal physician in the months prior to the suicide. Adolescents sometimes hint at their wish to die by giving away their prized possessions just prior to an attempt.

Anyone experiencing suicidal thoughts should be thoroughly evaluated by a professional trained in the assessment of suicidal patients. If the risk of suicide is considered to be high enough, the patient will have to be protected. This may require hospitalization, either voluntary or involuntary. It may mean removing suicidal means from that person's environment, such as removing guns from the home. Having someone stay with the patient at all times may be required. These steps should be individualized, taking into account the patient's situation.

Treatment and Therapy

Treatment of the underlying cause of the suicidal ideation is very important. Depression and anxiety can be treated with medications and/or psychotherapy. There are treatment programs for alcoholism and drug abuse. Usually, successful treatment of the underlying mental disorder results in the suicidal thoughts going away.

While they await the resolution of the suicidal ideation, patients need to be offered support and hope. Sometimes, a "no suicide" contract is helpful. This is simply a commitment on the part of the patient not to act on any suicidal thoughts and to contact the health professional if the urges become worse. While this contract may be written down, it is usually verbal.

Suicide prevention includes the early detection and management of the mental disorders associated with suicide. Because social isolation increases the risk of suicide, patients should be encouraged to develop and actively maintain strong social supports such as family, friends, and other social groups (such as church, clubs, and sports teams).

It may also be helpful to provide counseling to teenagers after an acquaintance has committed suicide, as this may prevent social contagion and suicide clusters. A suicide cluster is when several teenagers commit suicide after learning of the suicide of an acquaintance or a person who is attractive to them, such as a music or film star. Suicide clusters have increased among the young.

Family members of a suicide victim often go through a grieving process which is more severe than that which occurs after death from other causes. The stigma of suicide and mental illness is strong, and surviving family members often have greater feelings of both guilt and abandonment. Family survivors also have increased psychosomatic complaints, behavioral and emotional problems, and an increased risk of suicide themselves. Referral to a suicide survivor group may be helpful.

An understanding of the causes, detection, and treatment of suicide has led to the development of a number of suicide hotlines and suicide prevention centers. There is evidence that, after these support groups are introduced into a community, the suicide rate for young women decreases. It is not yet known if they have any effect on other groups, such as young men or the elderly.

Most people who contemplate suicide do not seek professional treatment even if they tell people around them of their suicidal ideas. Thus, it is important for physicians, clergy, teachers, parents, and mental health workers to remain alert to the possibility of suicidal thoughts in those in their care. If someone is depressed or very anxious, they should be asked if they have suicidal thoughts. Such a question will not plant the idea in their heads, and they may be relieved that they are being asked. Once someone with suicidal ideation is identified, evaluation and treatment should proceed quickly. The following sample composite cases illustrate the application of the concepts described in the overview.

Mary is a seventeen-year-old senior in high school. She is from a broken home and was severely abused by her father prior to her parents' divorce ten years ago. Her teachers think that she is a bright underachiever who has a rather dramatic personality. Her friends see her as moody and easily angered. Her relationships with boyfriends are intense and always end with deep feelings of hurt and abandonment. Her mother is best described as cold, aloof, and preoccupied with herself.

Mary is brought to the school counselor by one of her friends when Mary threatens to kill herself and superficially scratches her wrists with a safety pin. The counselor learns that Mary has just broken up with her boyfriend, a young man at

a local junior college. She is devastated. When she tried to tell her mother about it, her mother seemed uninterested and said that Mary always makes too much of such little things. It was the next morning that she scratched herself in front of her friend.

While more information is needed, this case illustrates a suicide gesture. In this case, Mary does not want to die but instead wants someone to realize how distressed she is. She feels rejected by her boyfriend and then by her mother. One can suspect a gesture rather than a serious suicide attempt by the superficial, nonlethal means (scratching with a safety pin) and by the likelihood of discovery (done in front of a friend).

Tom is a forty-eight-year-old accountant. He is separated from his wife and three children and lives alone in an apartment. He has no real friends, only drinking buddies. Like his father and two uncles, Tom is an alcoholic. Each day after work, he stops at his favorite bar and drinks between eight and twelve beers.

He is brought to the emergency room of the local hospital by the police, who found him sitting on the steps of a church sobbing. He threatened to kill himself if his wife did not take him back. The emergency room doctor noted the strong odor of alcohol on his breath and ordered a blood alcohol test, which showed that he was legally intoxicated. Tom insisted that he would kill himself by running in front of a moving bus if he could not be with his family. The emergency room doctor had Tom's belt, pocketknife, and potentially dangerous items taken from him and arranged for a staff member to sit with him until he was sober. Six hours later, his blood alcohol had returned to near zero. Tom no longer felt despondent and had no more suicidal thoughts. He was embarrassed by his statements a few hours before. An alcoholism counselor was called, and outpatient treatment for his alcoholism was arranged.

This case illustrates suicidal ideation caused by alcohol intoxication. As often happens, the suicidal ideation resolves when the patient becomes sober. The primary treatment is for the underlying addictive disorder.

Sally is a fifty-three-year-old married mother of two. She is a part-time hairdresser and normally a very active, happy person. For the past three weeks, however, she has gradually lost all interest in her job, her children, her home, and her hobbies. She feels irritable and sad most of the time. Although she is tired, she does not sleep well at night, waking up very early each morning, unable to return to sleep. She is worried by the fact that she is having intrusive thoughts of killing herself. Sally imagines she could end all this dreariness by overdosing on sleeping pills and never waking up. She is a strict Catholic and knows it is against her religion to commit suicide. She calls her parish priest.

After a brief conversation, her priest meets her at the office of a psychiatrist who acts as a consultant for the diocese. The psychiatrist diagnoses major depression as the cause of Sally's suicidal ideation. She has a good social support network, so the psychiatrist decides to treat her as an outpatient and has her agree to a "no suicide" contract. Sally is also started on antidepressant medication, which gradually lifts her depression over a period of two to three weeks. Simultaneously, her suicidal thoughts leave her.

This case illustrates suicidal thoughts caused by depression. If Sally had been

more depressed or her suicidal urges stronger, she would probably have needed hospitalization. If she had required hospitalization and had refused to go voluntarily, the psychiatrist could have had her committed according to the laws of the state where he practiced. Most states require a signed statement by two physicians or one physician and a licensed clinical psychologist. They must attest that the patient is a danger to himself or herself and that no less restrictive form of treatment would suffice.

Harry is a sixty-seven-year-old resident of a hospital, where he has been for the past two years. He has a serious neurological disorder called amyotrophic lateral sclerosis (also called Lou Gehrig's disease). It has caused progressive weakness such that he cannot even breathe on his own. Harry is permanently connected to a respirator attached to a tracheotomy tube in his throat. He has few visitors and mostly stares off and thinks.

Harry tells his nurse that he is "sick of it all" and wants his doctors to disconnect him from the respirator and let him die. His neurologist requests a psychiatric evaluation. The psychiatrist confirms the patient's wish to die. There is no evidence of dementia or other cognitive disorder, nor is the patient showing any evidence of a mental illness. Subsequently, a meeting is called of the hospital ethics committee to make recommendations. Membership on the committee includes physicians, nurses, an ethicist, a local minister, and the hospital attorney.

This case illustrates a difficult example of rational suicide. The patient has a desire to die and is not suffering from any mental disorder. In this case, he is requesting not to take his own life actively but to be allowed to die passively by removal of the respirator. Some people do not consider this to be suicide at all. They make a distinction between passively allowing a natural process of dying to occur and actively taking one's own life. If this patient requested a lethal overdose of potassium to be injected into his intravenous tubes, such action would be considered suicide and ethically different. In either event, these matters are more ethical, social, and legal than psychiatric.

Perspective and Prospects

Throughout history, there have been numerous examples of suicide. In Western culture, early views on the subject were mainly from a moral perspective and suicide was viewed as a sin. Mental illness in general was poorly understood and often thought of as weakness of character, possession by evil spirits, or willful bad behavior. Thus, mental illness was stigmatized. Even though society now has a better medical understanding of mental illness, there is still a stigma attached to mental illness and to suicide. This stigma contributes to underdiagnosis and undertreatment of suicidal individuals, as many sufferers are reluctant to come forth with their symptoms.

Yet, suicide remains an important public health problem, as it is the ninth most common cause of death in the United States (although it is third for adolescents and second for young adults). There are about thirty thousand known suicides in the United States annually. The actual incidence may be higher because an unknown number of accidental deaths or untreated illnesses may actually be undiagnosed suicides. Suicide is more common among young adults and the

elderly, with a relative sparing of the middle aged. The rate of suicide is rising among teenagers. The lifetime prevalence of suicide attempts among American adults is about 2.9 percent.

As most cases of suicidal ideation never come to the attention of health professionals, a high index of suspicion should be maintained. Those people who express suicidal thoughts should be taken seriously and thoroughly evaluated. Increased levels of awareness of suicide may help to improve detection and treatment of this potentially preventable cause of death.

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See also:

Addictive Personality and Behaviors; Alcoholism; Anxiety Disorders; Child and Adolescent Psychiatry; Dementia; Depression; Geriatric Psychiatry; Grief and Guilt; Neurosis; Schizophrenia; Stress; Teenage Suicide.

Teenage Suicide

Type of psychology: Psychopathology; stress
Fields of study: Adolescence; critical issues in stress; depression

Teenage suicide is a profoundly tragic and unsettling event. The rise in adolescent suicide has been so dramatic since the 1960's that it cannot be ignored as a passing problem; attention has been directed toward gaining insight into the myths, causes, warning signs, treatments, and preventive measures of adolescent suicide.

Principal terms

BEHAVIORAL PSYCHOLOGY: a school of psychology that studies only observable and measurable behavior

COGNITIVE LIMITATIONS: a lack of development in mental activities such as perception, memory, concept formation, reasoning, and problem solving

COGNITIVE PSYCHOLOGY: a school of psychology devoted to the study of mental processes; behavior is explained by emphasizing the role of thoughts and individual choice regarding life goals

DEPRESSION: a psychological disorder characterized by lowered self-esteem, feelings of inferiority, and sadness

PSYCHODYNAMIC ORIENTATION: psychotherapeutic thinking that is based loosely on the theories of Freud and his theory of psychoanalysis

SUICIDE: self-destruction in which the victim clearly intended to kill himself or herself; the act must be successful to be categorized as suicide

SUICIDE ATTEMPT: a situation in which the individual commits a life-threatening act that does not result in death; the act must have the intent or give the appearance of actually jeopardizing the person's life

Causes and Symptoms

The statistics on teenage suicide are shocking. Suicide is the fifth leading cause of death for those under age fifteen, and it is the second leading cause of death for those ages fifteen to twenty-four. Perhaps even more disturbing are the statistics regarding the classification of attempted suicides. Although it is difficult to determine accurately, it is estimated that for every teenager who commits suicide there are approximately fifty teenagers who attempt to take their own lives. According to John Santrock, as many as two in every three college students has thought about suicide on at least one occasion.

According to Linda Nielson, the dramatic increase in youth suicide is primarily a result of the change in the male suicide rate. From 1970 to 1980, male suicides increased by 50 percent, with only a 2 percent increase among females. Females attempt suicide at higher rates than males but are less likely to suceed. Males are much more likely to use violent and lethal methods, such as shooting or hanging. Females are more likely to use passive means to commit suicide; the use of drugs and poisons, for example, is more prevalent among females than males.

As alarming as these figures may be, it should be noted that suicide is still very rare among the young. The National Center for Disease Control has estimated that suicide claims the lives of only 0.0002 percent of all adolescents. Nevertheless, preventing suicide would save thousands of adolescent lives each year. The problem of suicide is complex, and studying it has been especially difficult because suicidal death is often denied by both the medical professional and the victim's family. The whole subject of suicide is carefully avoided by many people. As a result, the actual suicide rate among adolescents may be significantly higher than the official statistics indicate.

There are no simple answers to explain why adolescents attempt suicide, just as there are no simple solutions that will prevent its occurrence; however, researchers have discovered several factors that are clearly related to this drastic measure. These include family relations, depression, social interaction, and the adolescent's concept of death.

Family factors have been found to be highly correlated with adolescent suicide. A majority of adolescent suicide attempters come from families in which home harmony is lacking. Often there is a significant amount of conflict between the adolescent and his or her parents and a complete breakdown in communications. Many suicidal youths feel unloved, unwanted, and alienated from the family. Almost every study of suicidal adolescents has found a lack of family cohesion.

Most adolescents who attempt suicide have experienced serious emotional difficulty prior to their attempt. For the majority, this history involves a significant problem with depression. The type of chronic depression that leads some adolescents to commit suicide is vastly different from the occasional "blues" most people experience from time to time. When depression is life-threatening, adolescents typically feel extremely hopeless and helpless, and believe there is no way to improve their situation. These feelings of deep despair frequently lead to a negative self-appraisal in which the young person questions his or her ability to cope with life.

Further complicating the picture is the fact that clinically depressed adolescents have severe problems with relating to other people. As a result, they often feel isolated, which is a significant factor in the decision to end one's life. They may become withdrawn from their peer group and develop the idea that there is something wrong with society. At the same time, they lack the ability to recognize how their inappropriate behavior adversely affects other people.

Another factor that may contribute to suicidal thoughts is the adolescent's conception of death. Because of developmental factors, a young person's cognitive limitations may lead to a distorted, incomplete, or unrealistic understanding of death. Death may not be seen as a permanent end to life and to all contact with the living; suicide may be viewed as a way to punish one's enemies while maintaining the ability to observe their anguish from a different dimension of life. The harsh and unpleasant reality of death may not be realized. Fantasy, drama, and "magical thinking" may give a picture of death that is appealing and positive. Adolescents' limited ability to comprehend death in a realistic manner may be further affected by the depiction of death in the songs they hear, the literature they read, and the

films they watch. Frequently death is romanticized. Often it is presented in euphemistic terms, such as "gone to sleep" or "passed away." At other times it is trivialized to such an extent that it is the stimulus for laughter and fun. Death and violence are treated in a remarkably antiseptic fashion.

Treatment and Therapy

Suicide is a tragic event for both the victim and the victim's family. It is also one of the most difficult problems confronting persons in the helping professions. In response, experts have focused their attention on trying to understand better how to prevent suicide and how to treat those who have made unsuccessful attempts to take their own lives.

It is believed that many suicides can be prevented if significant adults in the life of the adolescent are aware of various warning signals that often precede a suicide attempt. Most adolescents contemplating suicide will emit some clues or hints about their serious troubles or will call for help in some way. Some of the clues are easy to recognize, but some are very difficult to identify.

The adolescent may display a radical shift in characteristic behaviors related to academics, social habits, and relationships. There may be a change in sleeping habits; adolescents who kill themselves often exhibit difficulty in falling asleep or maintaining sleep. They are likely to be exhausted, irritable, and anxious. Others may sleep excessively. Any deviation from a usual sleep pattern should be noted. The individual may experience a loss of appetite with accompanying weight loss. A change in eating habits is often very obvious.

A pervasive feeling of hopelessness or helplessness may be observed. These feelings are strong indicators of suicide potential. Hopelessness is demonstrated by the adolescent's belief that his or her situation will never get better. It is believed that current feelings will never change. Helplessness is the belief that one is powerless to change anything. The more intense these feelings are, the more likely it is that suicide will be attempted. The adolescent may express suicidal thoughts and impulses. The suicidal adolescent may joke about suicide and even outline plans for death. He or she may talk about another person's suicidal thoughts or inquire about death and the hereafter. Frequently, prized possessions will be given away. Numerous studies have demonstrated that drug abuse is often associated with suicide attempts. A history of drug or alcohol abuse should be considered in the overall assessment of suicide potential for adolescents.

A variable that is often mentioned in suicide assessment is that of recent loss. If the adolescent has experienced the loss of a parent through death, divorce, or separation, he or she may be at higher

POSSIBLE WARNING SIGNS FOR TEEN SUICIDE

- suicide threats, direct and indirect
- obsession with death
- poems, essays, and drawings that refer to death
- dramatic change in personality or appearance
- irrational, bizarre behavior
- overwhelming sense of guilt, shame, or refection
- changed eating or sleeping patterns
- severe drop in school performance
- giving away belongings

risk. This is especially true if the family is significantly destabilized or the loss was particularly traumatic. A radical change in emotions is another warning sign. The suicidal adolescent will often exhibit emotions that are uncharacteristic for the individual. These may include anger, aggression, loneliness, guilt, grief, and disappointment. Typically, the emotion will be evident to an excessive degree.

Any one of the above factors may be present in the adolescent's life and not indicate any serious suicidal tendency; however, the combination of several of these signs should serve as a critical warning and result in some preventive action.

The treatment of suicidal behavior in young people demands that attention be given to both the immediate crisis situation and the underlying problems. Psychologists have sought to discover how this can best be done. Any effort to understand the dynamics of the suicidal person must begin with the assumption that most adolescents who are suicidal do not want to die. They want to improve their lives in some manner, they want to overcome the perceived meaninglessness of their existence, and they want to remove the psychological pain they are experiencing.

The first step in direct intervention is to encourage talking. Open and honest communication is essential. Direct questions regarding suicidal thoughts and/or plans should be asked. It simply is not true that talking about suicide will encourage a young person to attempt it. It is extremely important that the talking process include effective listening. Although it is difficult to listen to an individual who is suicidal, it is very important to do so in a manner that is accepting and calm. Listening is a powerful demonstration of caring and concern.

As the adolescent perceives that someone is trying to understand, it becomes easier to move from a state of hopelessness to hope and from isolation to involvement. Those in deep despair must come to believe that they can expect to improve. They must acknowledge that they are not helpless. Reassurance from another person is very important in this process. The young person considering suicide is so overwhelmed by his or her situation that there may seem to be no other way of escape. Confronting this attitude and pointing out how irrational it is does not help. A better response is to show empathy for the person's pain, then take a positive position which will encourage discussion about hopes and plans for the future.

Adolescents need the assurance that something is being done. They need to feel that things will improve. They must also be advised, however, that the suicidal urges they are experiencing may not disappear immediately, and that movement toward a better future is a step-by-step process. The suicidal young person must feel confident that help is available and can be called upon as needed. The adolescent contemplating suicide should never be left alone.

If the risk of suicide appears immediate, professional help is indicated. Most desirable would be a mental health expert with a special interest in adolescent problems or in suicide. Phone-in suicide prevention centers are located in virtually every large city and many smaller towns, and they are excellent resources for a suicidal person or for someone who is concerned about that person. In order to address long-term problems, therapy for the adolescent who attempts suicide should ideally include the parents. Family relationships must be changed in order to assist the young person in feeling less alienated and worthless.

Perspective and Prospects

Suicide has apparently been practiced to some degree since the beginning of recorded history; however, it was not until the nineteenth century that suicide came to be considered a psychological problems. Since that time, several theories which examine the suicidal personality have been developed.

Émile Durkheim was one of the first to offer a major explanation for suicidal behavior. In the late nineteenth century he conducted a now-classic study of suicide and published his book *Le Suicide: Étude de sociologie* (1897; *Suicide: A Study in Sociology*, 1951). He concluded that suicide is often a severe consequence of the lack of group involvement. He divided suicide into three groupings: egoistic, altruistic, and anomic suicides.

The egoistic suicide is representive of those who are poorly integrated into society. These individuals feel set apart from their social unit and experience a severe sense of isolation. He theorized that people with strong links to their communities are less likely to take their lives. Altruistic suicide occurs when individuals become so immersed in their identity group that group goals and ideals become more important than their own lives. A good example of this type of suicide would be the Japanese kamikaze pilots in World War II: They were willing to give up their lives in order to help their country. The third type, anomic suicide, occurs when an individual's sense of integration in the group has dissolved. When caught in sudden societal or personal change that creates significant alienation or confusion, suicide may be viewed as the only option available.

Psychologists with a psychodynamic orientation explain suicide in terms of intrapsychic conflict. Emphasis is placed on understanding the individual's internal emotional makeup. Suicide is viewed as a result of turning anger and hostility inward. Sigmund Freud discussed the life instinct versus the drive toward death or destruction. Alfred Adler believed that feelings of inferiority and aggression can interact in such a way as to bring a wish for death in order to punish loved ones. Harry Stack Sullivan viewed suicide as the struggle between the good me, bad me, and not me.

Other areas of psychology offer different explanations for suicidal behavior. Cognitive psychologists believe that suicide results from the individual's failure to utilize appropriate problem-solving skills. Faulty assessment of the present or future is also critical and may result in a perspective marked by hopelessness. Behavioral psychologists propose that past experiences with suicide make the behavior an option which may be considered; other people who have taken their lives may serve as models. Biological psychologists are interested in discovering any physiological factors that are related to suicide. It is suggested that chemicals in the brain may be linked to disorders which predispose an individual to commit suicide.

Research in the area of suicide is very difficult to conduct. Identification of those individuals who are of high or low suicidal risk is complex, and ethical considerations deem many research possibilities questionable or unacceptable. Theory construction and testing will continue, however; the crisis of adolescent suicide demands that research address the causes of suicide, its prevention, and treatment for those who have been unsuccessful in suicide attempts.

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See also:

Child and Adolescent Psychiatry; Community Psychology; Depression; Identity Crises; Stress; Suicide.

Transactional Analysis

Type of psychology: Psychotherapy
Fields of study: Cognitive therapies; humanistic therapies; interpersonal relations

Transactional analysis (TA) is a school of psychotherapy and personality theory. Many of TA's key concepts, such as therapeutic contracts, games, and life scripts, have been accepted in the general psychotherapy community.

Principal terms

ADULT: the part of the personality that is objective, solves problems, and processes data

CHILD: the feeling, spontaneous, and impulsive part of the personality; the child ego state is subdivided into three subphases: free, adapted, and intuitive

DECISION: an early childhood choice in which the individual defines his or her life stance

DISCOUNTING: a response to the self or to another person that undermines self-esteem

EGO STATE: the building block of TA; the mental attitude of an individual at a given moment, such as parent, adult, or child

GAMES: a series of transactions in which one or both players end up feeling hurt or "not OK"

LIFE SCRIPT: a "script" that resembles a drama or mythological role that an individual reenacts as a result of family conditioning

PARENT: the part of personality that is incorporated from one's real parents; the parent ego state is either nurturing or critical

RACKET: an unhappy feeling that results from a game; chronic feelings that are maintained in order to justify an "I am not OK" life position

STROKE: a form of personal recognition that may include a touch, a kind word, or public praise; strokes may be positive or negative

Overview

Transactional analysis (TA) is a theory of personality and social interaction originated by Eric Berne in the mid-1950's. TA's popularity has been primarily as a form of psychotherapy and a method for improving social interactions between people in almost any setting—from the group therapy room to business and industry. Berne rejected psychoanalytic therapy, which he considered a type of game called "archaeology," in favor of his own short-term, action-oriented, commonsense approach to psychotherapy. Before entering a group psychotherapy session, Berne would ask himself, "How can I cure everyone in this room today?" In 1964, Berne's book *Games People Play* created a popular interest in a theory of personality and psychotherapy unequaled in the history of psychology; the book sold more than a million copies.

The basic concepts of transactional analysis describe an individual personality

and the individual's repetitive patterns of interacting with others. Three distinct ego states compose the individual personality: "parent," "adult," and "child." Berne observed these as distinct phases in his patients' self-presentations. The child ego state within each individual is defined by the feeling, creative, and intuitive part within the person. The child ego state may be approval-seeking or defiant. The funloving or "free" side of the child state is curious, spontaneous, and impulsive. Parental discipline, when too harsh or inconsistent, often damages this spontaneous and free child; the adapted child is what then results. The adapted child can have a broken or rebellious spirit and may develop depression or addictions. In either case, the individual, authentic self becomes distorted because of an excessively compliant or defiant adaptation.

The adult ego state is objective and, in a sense, resembles a computer. The adult retrieves, stores, and processes data about physical and social reality. Problem solving and task-oriented behavior are the domain of the adult. If one were trying to build a bridge or do homework, the adult ego state would serve best; however, many problems require the assistance of the intuitive and creative child to be solved most effectively.

The parent ego state is an internalization of one's biological parents or other substitute authority figures in early childhood. The parent state judges, criticizes, and blames. This harsh side of the parent state is the critical parent. In contrast, Berne also recognized the nurturing parent that soothes, encourages, and gently supports the individual. The nurturing parent calls forth the free child, while the critical parent conditions the adapted child. The parent ego state is like a tape recording of the "dos and don'ts" of one's family of origin and culture; it may contain obsolete information. When in the parent state, one may point or shame with an extended index finger or disapproving scowl.

Transactions are basic units of analysis for the TA therapist. A transaction occurs when one individual responds to the behavior of another. Transactions are called complementary when both persons interact from compatible ego states. For example, a feverish child asks her parent for a glass of water, and the parent complies. A crossed transaction occurs when individuals in incompatible ego states interact. For example, a whining and hungry child asks a parent for an ice cream cone, and the parent (speaking from her adult ego state) reminds the child that it would not be nutritious. The child cannot incorporate the adult data. Another important type of transaction is the ulterior one. An ulterior transaction occurs when the spoken message is undercut by a hidden agenda. To exemplify this, Berne cited a cowboy who asks a woman to leave the dance and go look at the barn with him. The face value of his adult-to-adult question is subtly undercut by a child-to-child sexual innuendo.

Ulterior transactions, when not clearly understood by both parties, lead to "games." A game by definition is a social transaction in which either both or one member of the duo ends up feeling "bad." This bad feeling is experienced as a payoff by the game perpetrator; the game pays off by confirming the player's existential life position. For example, the game that Berne called "blemish" involves an existential life position of "I am not OK, you are not OK." In this game,

the player exhaustively searches his or her partner for some defect, such as a personality quirk or physical imperfection. Once this defect or blemish is found, the player can hold it up as proof that others are not OK. One thus avoids examining one's own blemish while providing that "others are no good." An example of this can be seen in the chronic bachelor who cannot find a woman who measures up to his perfectionistic standards for marriage.

"Rackets" are the negative feelings that one experiences after a game. Racket feelings are chronic and originate in the early stroking patterns within one's family of origin. In the game of "blemish," the player will ultimately feel lonely and sad, while the victim may feel hurt and rejected. Berne compared rackets to stamp collecting: When one collects ten books of brown stamps from playing blemish, they can be cashed in for a divorce or suicide.

Life scripts emerge through repetitive interactions with one's early environment. Messages about what to expect from others, the world, and self become ingrained. A script resembles an actor's role in a drama. An important outcome of one's early scripting is the basic decision one makes about one's existential position. Specifically, the basic identity becomes constellated around feelings of being either OK (free child) or not OK (adapted child). Coping strategies are learned that reinforce the basic decision. Life scripts can often be discovered by asking individuals about their favorite games, heroes, or stories from their childhood. Once individuals become aware of their life scripts, they can be presented with the option of changing them. If a script does not support a person's capacity to be an authentic winner in life, the TA therapist will confront it. TA holds that people are all born to win.

Applications

Transactional analysis has been applied to the areas of individual and group psychotherapy, couples and family relationship problems, and communication problems within business organizations. This widespread application of TA should not be surprising, since TA's domain is wherever two human beings meet. Berne believed that the playing of games occurs everywhere, from the sandbox to the international negotiation table. Consequently, wherever destructive patterns of behavior occur, TA can be employed to reduce dysfunctional transactions.

TA's most common application is in psychotherapy. The TA therapist begins by establishing a contract for change with his client. This denotes mutual responsibilities for both therapist and client and avoids allowing the client to assume a passive spectator role. The therapist also avoids playing the "rescuer" role. For example, Ms. Murgatroyd (Berne's favorite hypothetical patient name), an attractive thirty-two-year-old female, enters therapy because her boyfriend refuses to make the commitment to marry her. Her contract with the therapist and group might be that she will either receive a marriage commitment from her boyfriend or will end the relationship. As her specific games and life script are analyzed, this contract might undergo a revision in which greater autonomy or capacity for intimacy becomes her goal.

During the first session, the therapist observes the client's style of interacting.

The therapist will be especially watchful of voice tone, gestures, and mannerisms and will listen to her talk about her current difficulties. Since games are chronic and stereotypical ways of responding, they will appear in the initial interview. For example, her dominant ego state might be that of a helpless, whining child looking for a strong parent to protect her. Ms. Murgatroyd may describe her boyfriend in such bitter and negative terms that it is entirely unclear why a healthy adult would want to marry such a man. Discrepancies of this sort will suggest that a tragic script may be operating.

During the first few interviews, the transactional analysis includes game and script analysis. This might require some information about Ms. Murgatroyd's early childhood fantasies and relationships with parents, but would eventually return to her present behavior and relationship. This early history would be used primarily to help the therapist and client gain insight into how these childhood patterns of interacting are currently manifesting. Once the games and script have been clearly identified, the client is in a much better position to change.

After several interviews, in which Ms. Murgatroyd's past and recent history of relationships is reviewed, a pattern of her being rejected is evident. She acknowledges that her existential position is "I am not OK, you are not OK." Her repeated selection of men who are emotionally unavailable maintains her racket feelings of loneliness and frustration. She begins to see how she puts herself in the role of victim. Armed with this new awareness, she is now in a position to change her script. Through the support of the therapist and group, Ms. Murgatroyd can learn to catch herself and stop playing the victim.

Berne believed that the original script could best be changed in an atmosphere of openness and trust between the client and therapist. Hence the TA therapist will at all times display respect and concern for his or her client. At the appropriate time in therapy, the therapist delivers a powerful message to the client which serves to counteract the early childhood messages that originally instated the script. Ms. Murgatroyd's therapist, at the proper time, would decisively and powerfully counterscript her by telling her, "You have the right to intimacy!" or "You have the right to take care of yourself, even if it means leaving a relationship." Since the existential life position is supported by lifelong games and scripts, which resist change, TA therapists often employ emotionally charged ways of assisting a client's script redecision.

To catalyze script redecision, a client is guided back in time to the original scene where the destructive message that started the losing life script was received. Simply being told differently by a therapist is not always strong enough to create an emotionally corrective experience that will reverse a life script. Once in the early childhood scene, the client will spontaneously enter the child ego state, which is where the real power to change lies. This time, during the therapeutic regression, the choice will be different and will be for the authentic self.

Ms. Murgatroyd, who is struggling to change an early message, "Don't be intimate," needs to reexperience the feeling she had at the time she first received this message and accepted it from her adapted child ego state. In the presence of the therapist and group, she would role-play this early scene and would tell herself

and the significant parent that she *does* have the right to be intimate. These words would probably be spoken amid tears and considerable emotional expression. The parent(s) would be symbolically addressed by her speaking to an empty chair in which she imagines her significant parent sitting: "Whether you like it or not, I'll be intimate!" She would tell herself that it is OK to be intimate. This time she will make a new decision about her script based on her authentic wants and needs, rather than on faulty messages from early childhood. Ms. Murgatroyd's further TA work might involve new contracts with the therapist and group as she integrates her new script into her daily life.

Perspective and Prospects

Transactional analysis evolved as a form of short-term psychotherapy beginning in the mid-1950's. Eric Berne's early work in groups as a major in the Army during World War II helped him identify the need for both group and short-term therapy. The human growth and potential movement of the 1960's added further momentum to the transactional analysis approach. TA's recognition of the innate goodness of the free child prior to the damage of early parental injunctions and self-defeating scripts was consistent with the then-emerging humanistic schools of psychology. Berne began using TA as an adjunct to psychoanalysis, but he eventually rejected the psychoanalytic idea of the dynamic unconscious. Berne's move away from the unconscious and Freudian system paralleled developments in other schools of psychology. Both behavioral psychologists and the cognitive school wished to move away from what they saw as "depth psychology" fictions.

The general thesis of TA that current behavior is premised on responses to emotional trauma of early childhood is generally agreed upon by most psychologists. Early life experience teaches people to script a behavioral pattern, which they then repetitively act out in adulthood. Behavioral and humanistic schools alike recognize the formative role that early experiences play in adult behavior patterns; these ideas are not original to TA. TA's contribution is to have created a vocabulary that demystifies many of these ideas and provides a readily learned method of psychotherapy.

Most of the TA jargon and concepts can be readily seen to correspond to equivalent ones used by other psychologists. Sigmund Freud's constructs of the superego, ego, and id bear a noteworthy similarity to Berne's parent, adult, and child. The superego as the internalized voice of parental and societal values to regulate behavior nearly coincides with Berne's parent ego state. Freud's ego and the adult ego state similarly share the responsibility of solving the individual's problems with a minimum of emotional bias. Freud's id as the instinctual, spontaneous part of the personality shares many characteristics with Berne's child ego state.

Berne's concept of a game's "payoff" is clearly what the behaviorist call a reinforcer. The idea of scripts corresponds to the notion of family role or personality types in other personality theories. For example, an individual with a dominant child ego state would be labeled an orally fixated dependent type in Freudian circles.

The psychological role of dysfunctional families has become a topic of conversation for many nonspecialists. The explosion of twelve-step self-help groups has evidenced growing concern about America's mental health; the prominent role of shame and abandonment experiences in early childhood is receiving widespread interest. This surge of interest in making mental health services available to all society is a continuation of what TA practitioners pioneered several decades earlier. It is likely that future developments in the mental health field will draw upon the rich legacy of TA.

Finally, pure transactional analysis as practiced by Berne in the 1960's right before his death has been modified by TA therapists who combine it with emotive and experiential techniques. Many TA therapists found that life scripts failed to change when their clients merely executed new adult decisions. Powerful therapeutic experiences in which the individual regresses and relives painful experiences were necessary. These enable the client to make script redecisions from the child ego state, which proved to be an effective source of change. Future TA therapists are likely to continue enhancing their methods of rescripting by eclectically drawing upon new methods of behavior change that go beyond traditional TA techniques. The intuitive child ego state, upon which TA therapists freely draw, promises creative developments in this school of psychotherapy.

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Paul August Rentz

See also:

Abnormality: Cognitive Models; Abnormality: Humanistic-Existential Models; Cognitive Therapy; Group Therapy; Psychotherapy: Goals and Techniques; Psychotherapy: Historical Approaches to Treatment; Rational-Emotive Therapy.

Type A Behavior Pattern

Type of psychology: Personality; stress
Fields of study: Personality theory; stress and illness

The Type A behavior pattern has been related to coronary artery disease; individuals who have the Type A behavior pattern have been shown to be at a greater risk of coronary artery disease in some studies.

Principal terms

CATECHOLAMINES: hormones released from the adrenal glands in response to stressful situations

HARD-DRIVING BEHAVIOR: a Type A trait that comes from a perception of being more responsible, conscientious, competitive, and serious than other people

HURRY SICKNESS: the perception that more needs to be done or should be done in a given period of time

JOB INVOLVEMENT: a Type A trait that comes from the perception of having a challenging, high-pressure job

SPEED AND IMPATIENCE: two traits of the Type A behavior pattern caused by a perception of time urgency

Causes and Symptoms

The Type A behavior pattern, often simply called the Type A personality, identifies behaviors which have been associated with coronary artery disease. Although these behaviors appear to be stress related, they are not necessarily involved with stressful situations or with the traditional stress response. Instead, the behaviors are based on an individual's thoughts, values, and approaches to interpersonal relationships. In general, Type A individuals are characterized as ambitious, impatient, aggressive, and competitive. Individuals who are not Type A are considered Type B. Type B individuals are characterized as relaxed, easygoing, satisfied, and noncompetitive.

Cardiologists Meyer Friedman and Ray H. Rosenman began work on the Type A behavior pattern in the mid-1950's. It was not until the completion of some retrospective studies in the 1970's, however, that the concept gained credibility. During the 1950's, it was noticed that younger and middle-aged people with coronary artery disease had several characteristics in common. These included a hard-driving attitude toward poorly defined goals; a continuous need for recognition and advancement; aggressive and at times hostile feelings; a desire for competition; an ongoing tendency to try to accomplish more in less time; a tendency to think and act faster and faster; and a high level of physical and mental alertness. These people were classified as "Pattern A" or "Type A."

Following their work on identifying the characteristics of the Type A personality or behavior pattern, Friedman and Rosenman began conducting studies to determine if it might actually cause coronary artery disease. First they conducted several

correlational studies to determine if there was a relationship between the Type A behavior pattern and metabolic function in humans. They found that healthy persons with the Type A behavior pattern had elevated levels of fat in the blood (serum cholesterol and triglycerides), decreased blood-clotting time, increased catecholamine secretion (which increases heart contractility) during normal work hours, and decreased blood flow to some tissues. These studies indicated that the Type A behavior pattern may precede coronary artery disease.

Following these studies, Friedman, Rosenman, and their research team initiated the Western Collaborative Group Study in 1960. This large study, which went on for more than eight years, attempted to determine if the presence of the Type A behavior pattern increased the risk of coronary artery disease. The results of Rosenman and Friedman's study in 1974 indicated that the subjects with the Type A pattern had more than twice the incidence of the disease than subjects with the Type B pattern. More specifically, Type A individuals (when compared to Type B individuals) were twice as likely to have a fatal heart attack, five times more likely to have a second heart attack, and likely to have more severe coronary artery disease (of those who died). These results were found when other known risk factors, such as high blood pressure, smoking, and diet, were held constant. This study was followed by numerous other studies which linked coronary artery disease to the Type A behavior pattern. In 1978, the National Heart, Lung and Blood Institute sponsored a conference on the Type A behavior pattern. As a result of the Review Panel on Coronary-Prone Behavior and Coronary Heart Disease, a document was released in 1981 which stated that the Type A behavior pattern is related to increased risk of coronary artery disease.

Another product of the Western Collaborative Group Study was a method for assessing the Type A behavior pattern, developed by Rosenman in 1978. This method was based on a structured interview. A predetermined set of questions were asked of all participants. The scoring was based on the content of the participants' verbal responses as well as their nonverbal mannerisms, speech style, and behaviors during the interview process. The interview can be administered in fifteen minutes. Since the interview was not a traditional type of assessment, however, many interviewers had a difficult time using it.

In an effort to simplify the process for determining Type A behavior, many self-report questionnaires were developed. The first developed and probably the most-used questionnaire is the Jenkins Activity Survey, which was developed by C. David Jenkins, Stephen Zyzanski, and Rosenman in 1979. This survey is based on the structured interview. It gives a Type A score and three related subscores. The subscores include speed and impatience, hard driving, and job involvement. The Jenkins Activity Survey is a preferred method, because the questionnaire responses can be tallied to provide a quantitative score. Although this instrument is easy to use and provides consistent results, it is not considered as good as the structured interview because many believe the Type A characteristics can best be identified by observation.

The Type A behavior pattern continues to be studied, but research appears to have reached a peak in the late 1970's and early 1980's. Researchers are challeng-

ing the whole concept of coronary-prone behavior, because many clinical studies have not shown high correlations between the Type A behavior pattern and the progression of coronary artery disease. Other risk factors for coronary artery disease, such as smoking, high blood pressure, and high blood cholesterol, have received increasing attention.

The Type A behavior pattern, or personality, has been used to explain in part the risk of coronary artery disease; however, many risk factors for the disease have been identified. Since the various risk factors interact with one another, it is difficult to understand any one risk factor clearly.

Efforts have been made to explain the mechanism by which the Type A behavior pattern affects coronary artery disease. It has been theorized that specific biochemical and physiological events take place as a result of the emotions associated with Type A behavior. The neocortex and limbic system of the brain deliver emotional information to the hypothalamus. In a situation that arouses the Type A characteristics, the hypothalamus will cause the pituitary gland to stimulate the release of the catecholamines epinephrine and norepinephrine (also known as adrenaline and noradrenaline) from the adrenal glands, as well as other hormones from the pituitary itself. These chemicals will enter the blood and travel throughout the body, causing blood cholesterol and fat to increase, the ability to get rid of cholesterol to decrease, the ability to regulate blood sugar levels to decrease (as with diabetics), and the time for the blood to clot to increase. This response by the body to emotions is normal. The problem with Type A individuals arises because they tend to maintain this heightened emotional level almost continually, and the constant release of pituitary hormones results in these negative effects on the body being continuous as well.

The connection between Type A behavior and coronary artery disease actually results from the continuous release of hormones controlled by the pituitary gland. Through complex mechanisms, the constant exposure to these hormones causes several problems. First, cholesterol is deposited on the coronary artery walls as a result of the increase in blood cholesterol and the reduced ability to rid the blood of the cholesterol. Second, the increased ability of the blood to clot results in more clotting elements being deposited on the arterial walls. Third, clotting elements can decrease blood flow through the small capillaries which feed the coronary arteries, resulting in further complications with the cholesterol deposits. Fourth, increased insulin in the blood further destroys the coronary arteries. Therefore, the reaction of the pituitary gland to the Type A behavior pattern is believed to be responsible for the connection with coronary artery disease.

Treatment and Therapy

Fortunately, it is believed that people with the Type A behavior pattern can modify their behavior to reduce risk of coronary artery disease. As with many health problems, however, denial is prevalent. Therefore, it is important that Type A individuals become aware of their problem. In general, Type A individuals need to focus on several areas. These include hurry sickness, speed and impatience, and hostility.

Type A individuals try to accomplish more and more in less and less time (hurry sickness). Unfortunately, more is too often at the expense of quality, efficiency, and, most important, health. Type A individuals need to make fewer appointments related to work, and they need to schedule more relaxation time. This includes not starting the day in a rush by getting out of bed barely in time to get hurriedly to work. Finally, Type A individuals need to avoid telephone and other interruptions when they are working, because this aggravates hurry sickness. Therefore, it is recommended that individuals who suffer from hurry sickness avoid scheduling too much work; take more breaks from work (relaxation), including a lunch hour during which work is not done; and have calls screened in order to get blocks of working time.

Type A individuals typically do things rapidly and are impatient. For example, they tend to talk rapidly, repetitiously, and narrowly. They also have a hard time with individuals who talk slowly, and Type A individuals often hurry these people along by finishing their sentences. Additionally, Type A individuals try to dominate conversations, frequently focusing the discussion on themselves or their interests. In an effort to moderate speed and impatience, Type A individuals need to slow down, focus their speech in discussions to the specific problem, and cut short visits with individuals who waste their time. They should spend more time with individuals who enhance their opportunities.

The other area is hostility, or harboring destructive emotions. This is highly related to aggressiveness. Aggressive Type A individuals must learn to use their sense of humor and not look at situations only as challenges set up to bother or upset them. One way to accomplish this is for them consciously to attempt to socialize with Type B individuals. Obviously, this is not always possible, since the Type A individuals have certain other individuals with whom they must associate, such as colleagues at work and certain family members. Nevertheless, Type A individuals must understand their hostilities and learn to regulate them. In general, Type A individuals must learn to control their feelings and relationships. They must focus more attention on being well-rounded individuals rather than spending most of their time on work-related successes. Type A individuals can learn the Type B behavior pattern, resulting in a lower risk for coronary artery disease.

Perspective and Prospects

The Type A behavior pattern was defined by two cardiologists, Meyer Friedman and Ray H. Rosenman, in the 1950's at the Harold Brunn Institute for Cardiovascular Research, Mt. Zion Hospital and Medical Center, in San Francisco. Since that time, many researchers have studied the Type A behavior pattern. Initially, most of the researchers were cardiologists. Gradually, more and more psychologists have become involved with Type A research.

Since the concept of relating coronary heart disease with human behavior was developed by cardiologists instead of psychologists, it was initially called the Type A behavior pattern rather than the Type A personality. "Personality" relates to an individual's inner traits, attitudes, or habits and is very complex and generally studied by psychologists. As Type A was defined, however, it only related specific

behaviors with disease and was observed openly. Therefore, it seemed appropriate to label Type A a behavior pattern. Over the years, Type A has been assumed to be a personality; technically, this is not accurate, although many people now refer to it as the Type A personality.

Another reason Type A is most accurately considered a behavior pattern rather than a personality relates to the way it is assessed. Whether the structured interview or the written questionnaire is utilized, a predetermined set of questions and sequence are used. While this approach can assess a behavior pattern adequately, different skills which allow the interviewer to respond appropriately to an individual's answers and probe specific responses further are needed to assess personality.

The Type A behavior pattern evolved as a risk factor for coronary artery disease. The original need for this idea was not psychologically based. Instead, it was based on a need to understand further the factors that are involved with the development of coronary artery disease, a major cause of death. Therefore, the role of the Type A behavior pattern in psychology has been limited. Nevertheless, Type A studies have benefited humankind's understanding of an important disease and, to a certain extent, the understanding of psychology.

The future study of the Type A behavior pattern is in question. Research continually shows conflicting results about its role in coronary artery disease. As more research is conducted by both medical clinicians and psychologists, the true value of the Type A behavior pattern will become evident. Until then, health care professionals will continually have to evaluate the appropriateness of using the Type A behavior pattern as an identifier of the risk of artery or heart disease.

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Bradley R. A. Wilson

See also:

Abnormality: Biomedical Models; Anxiety Disorders; Biofeedback and Relaxation; Stress; Stress: Coping Strategies; Stress: Physiological Responses.

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