

RELATIONSHIP BETWEEN COGNITIVE  
CLOSURE, DECISION MAKING, AND LIFE  
SATISFACTION AMONG DOCTORS



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# **RELATIONSHIP BETWEEN COGNITIVE CLOSURE, DECISION MAKING, AND LIFE SATISFACTION AMONG DOCTORS**



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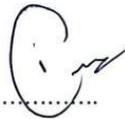
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### **Certificate of Approval**

It is certified by the thesis titled "Relationship between cognitive closure, decision making, and life satisfaction among doctors " performed through Imran Nasir, Reg. No. BSP 201045 under the supervision of Miss Irum Noureen, Capital University of Science & Technology, Islamabad is fully adequate, in scope and quality, as a Research Thesis for the degree of BS Psychology.

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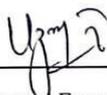
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This is declared to be a unique part of our work, unless otherwise indicated by the content and references of the text. This work has not been submitted to a university or higher education group of another level or degree, nor has it been submitted to obtain a degree in that university or other university or institution.

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**January, 2024**

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## Abstract

The current study aimed to explore the relationship between cognitive closure, decision making, and life satisfaction among doctors. A sample of 200 doctors (98 male, 102 female) was selected using a convenience sampling technique. The participants were asked to complete a self-administered questionnaire consisting of the need for closure scale, satisfaction with life scale, and decision-making questionnaire. Data was analyzed through the Statistical Package of Social Sciences (SPSS, version 21). The correlational analysis was used to investigate the relationship between variables. The findings revealed a significant positive correlation between cognitive closure and decision-making, indicating that doctors with a stronger need for cognitive closure exhibit more decision-making behaviors. Although a statistically significant correlation between cognitive closure and life satisfaction was observed, its strength was comparatively weaker, suggesting a nuanced impact on life satisfaction. It can be concluded from the results and discussion that there was a noticeable influence of demographic variables age on cognitive closure, decision-making, and life satisfaction. Younger doctors exhibited higher cognitive closure scores, indicating a developmental aspect in cognitive tendencies. Age-related differences were also evident in life satisfaction, emphasizing the complex interplay between demographic factors and cognitive processes. While no significant gender-based differences were found. The potential advantages of age-sensitive professional development programs are highlighted by the reported differences in life satisfaction and cognitive closure among age groups. Training and support systems can improve interventions to meet cognitive needs of various age groups in the medical field.

**Keywords** cognitive closure, decision making, and life satisfaction

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## Chapter 1

### Introduction

Medical practice is inherently ambiguous and uncertain. The doctors' ability to tolerate ambiguity and uncertainty has been proved to have a great impact on medical practice. The major goal or aim of this study is to explore that higher degree of cognitive closure will result in higher life satisfaction and higher decision-making power among doctors. The need for closure (NFC) has been defined as a desire for a definite answer to a question, as opposed to uncertainty, confusion, or ambiguity. It is assumed that the motivation toward closure varies along a continuum anchored at one end with a strong NFC and at the other end with a strong need to avoid closure. The NFC is elevated when the perceived benefits of possessing closure and/or the perceived costs of lacking closure are high. Likewise, the need to avoid closure is elevated when the perceived benefits of lacking closure and the perceived costs of possessing closure are high. These benefits and costs vary according to situational factors and individual differences (Fishman, 2009).

The need for cognitive closure is a general aspect of human functioning which can influence human decision making and can affect human life satisfaction. Decision making is the cognitive process where a person makes choices by themselves by identifying problems and then gathering relevant information of the situation and then finding an alternative option or making a final choice. Cognitive Closure plays a significant role in decision making and in the life satisfaction of the peoples (Kruglanski 2009).

Basically, life satisfaction is personal evaluation of the individual where they evaluate their quality of life determined using by their own rules so when doctors evaluate their decisions which they make for people's life and if those decisions

mistakenly cause difficulty in patient life, then doctors can be unsatisfied and some doctors faced stress during their practice. Hence cognitive closure can play a major role in decision making and in life satisfaction of peoples and particularly in doctors' life (Moksnes, 2013).

The desire for a clear solution to every inquiry, leaving no room for doubt or ambiguity, is known as the need for cognitive closure in psychology (Swann, 1990).

Each person has a varied level of neediness for cognitive closure, so this need isn't the same for everyone. Individual will have some preferences for predictability, order, and organization if they are at the top of the scale. If individual fall towards the bottom of the scale, people will feel more at ease in ambiguous and open circumstances and less disturbed by uncertainty. The majority of people, however, fall somewhere in the middle of the spectrum; in other words, individual appreciate order but can tolerate some degree of uncertainty (Hogg, 2021).

Beyond individual innate tendency, the current situation and its particulars have a significant impact on our demand for cognitive closure. Our demand for closure grows significantly when individuals are under pressure from fatigue or a time constraint, or when persons are in a situation with too much uncertainty and knowledge (Grenier et al., 2005). Stress increases as the requirement for cognitive closure grows. However, there are times when having this desire is advantageous.

Person become more disciplined and are able to concentrate while under pressure to solve difficulties. Making decisions one at a time and finding answers to issues can be viewed as productive activities, which makes it a useful measure of one's own productivity. But it might potentially have a bad outcome. Rushing decisions can result from a strong need to feel like person is making progress and are being useful. Instances characterized by impulsivity, authoritarianism, conflict, and impatience can

arise when the desire for cognitive closure is excessive. Typically, all of these are paired with poor choices (Leary, 2009).

Making decisions is a crucial cognitive activity that people use in a variety of spheres of life, from simple organization decisions to complicated personal ones. This process entails choosing the optimal course of action from a variety of possibilities, taking into account the facts at hand, and assessing the possible results. Whether on an individual or group level, effective decision-making is essential for achieving desired objectives and results. Any decision-making process involves a number of stages. The steps of decision-making include problem identification, data collection, alternative generation, evaluation and selection, implementation, and review (Mintzberg & Theoret, 2019).

These steps constitute a methodical procedure that leads people or groups through the decision-making process, assuring a systematic approach and improving the caliber of choices. Individual and collective decision-making are influenced by a variety of circumstances. One such element is cognitive biases, which are the regular judgmental errors people have a propensity to make as a result of cognitive constraints or psychological proclivities (Kahneman & Tversky, 2000).

By altering perception, cognitive biases can have an effect on decision-making, resulting in irrational decisions and worse than ideal results. Emotions are also a key factor in decision-making. Emotions can affect decision-making by either improving or diminishing rational thought, according to studies (Loewenstein & Lerner, 2003). While negative emotions like fear or wrath can cause impulsive or risk-averse actions, positive emotions like happiness might result in more upbeat assessments of future outcomes.

The decision-making process has been described and explained using a variety

of models. The rational decision-making model is a popular one that presupposes that decision-makers are logical people who gather all the information, objectively assess the choices, and choose the one with the highest predicted utility (Simon, 1957). A substitute model is the bounded rationality model, which accepts that people cannot always make totally rational decisions because they have limited cognitive resources and abilities (March & Simon, 1958).

According to this paradigm, decision-makers satisfice, which means they look for “good enough” alternatives rather than aiming for the ideal result. Making decisions is a complex process that calls for both individuals and groups to move through several stages, take influencing factors into account, and use the right decision-making models. Understanding the nuances of decision-making can help people improve their capacity for making wise decisions that produce better results in both the personal and professional areas (Schiller, 2018).

This viewpoint on decision-making emphasizes how crucial it is to comprehend the complexities involved in the process in order to improve people's and organizations' ability to make wise decisions that result in better outcomes (Gasper, 2017). Beyond making decisions, the multifaceted idea of life satisfaction captures a person's whole evaluation of their life. Life satisfaction, goes beyond fleeting happiness and includes an individual's subjective assessment of contentment, happiness, and overall well-being in a variety of life domains. A person's feeling of purpose in life, emotional well-being, sense of self-worth, and general assessment of life are all elements that affect life satisfaction. Understanding how these factors interact is essential to improving people's overall mental health and quality of life (King et al., 2014). This study seeks to provide a comprehensive examination of life happiness, its determinants, and the consequences for individuals' one's mental state.

By investigating subjective indices that of life satisfaction, such as affective reactions to certain circumstances and cognitive assessments, the study aims to unravel the intricate web that encompasses people's well-being. This study intends to increase information on life satisfaction and its major implications on psychological well-being by exploring a variety of elements, including employment, relationships, health, and personal achievements. Ultimately, integrating many perspectives on decision-making and life satisfaction advances our comprehension of the intricate mechanisms impacting individuals' general well-being (Buser, 2019).

The multifaceted concept of life satisfaction includes an individual's overall evaluation of their life. It represents the subjective assessment of one's well-being, contentment, and fulfillment in a range of situations. Understanding the components of life pleasure is necessary to improve people's quality of life and promote general mental health (Asch, 2007). This study attempts to provide a broad overview of life happiness, its contributing components, and its impact on individuals' psychological well-being. A person's subjective measure of life happiness considers both their emotional and cognitive responses to their unique set of circumstances. It describes a person's overall feelings about life, taking into consideration a range of aspects like work, relationships, health, and personal achievements, and goes beyond momentary happiness. The idea of life satisfaction encompasses a number of elements, such as emotional well-being, self-worth, a sense of purpose, and an overall assessment of one's life (King et al., 2014).

An individual's degree of life satisfaction is influenced by a variety of things. These variables can be divided into three primary categories: personal traits, interpersonal connections, and environmental variables (Ash, 2001). Life pleasure is significantly shaped by personal qualities and features. Personality qualities, self-worth, optimism, and resilience are a few examples. Because they are better able to handle life's obstacles

and losses, those with higher degrees of optimism and resilience frequently report higher levels of life satisfaction. Life satisfaction is significantly influenced by social interactions, such as those with family, friends, and romantic partners (Diener, 2002). Higher life happiness is influenced by the type and number of social contacts, social support, and the presence of intimate, meaningful connections.

A sense of belonging, emotional support, and potential for personal development and fulfilment are all provided by strong social connections (Garling, 2017). People's quality of life is also influenced by their living environment. An individual's perceived quality of life may be influenced by socioeconomic characteristics like income, education, and employment status. Life happiness can also be strongly impacted by factors such as accessibility to essential utilities, healthcare services, safety, and the general sociocultural background (Rosenfield, 1997). The impact of life satisfaction on people's mental health and general wellbeing is profound. Higher levels of life satisfaction are consistently linked to reduced levels of stress, anxiety, and depression, according to research. Additionally, those who report higher levels of life satisfaction use adaptive coping mechanisms more frequently, find more meaning and purpose in their lives, and have better physical health outcomes (Buser, 2017).

Mechanism developing interventions and initiatives to improve general wellbeing, politicians, researchers, and mental health practitioners can benefit from an understanding of the elements that affect life satisfaction. It is possible to develop higher levels of life satisfaction and enhance people's quality of life by addressing individual traits, fostering positive social connections, and providing supportive settings (Saxena, 2006). The subjective assessment of a variety of life areas, including as employment, relationships, health, and personal accomplishments, is referred to as life satisfaction. An individual's degree of life satisfaction is influenced by a variety of

variables, including personal traits, interpersonal connections, and environmental aspects. Promoting mental health and well-being requires an understanding of these factors and their effects. Policymakers and practitioners can strive towards building supportive settings that enable higher levels of total life satisfaction by addressing the factors that determine life happiness (Frisch, 1992).

Cognitive closure describes a person's propensity to avoid ambiguity or doubt in favor of seeking clear-cut solutions and assurance. It affects a number of cognitive functions, including judgement and general well-being. Understanding the psychological processes that lead to human well-being requires an understanding of the connections between cognitive closure, decision-making, and life satisfaction. Investigates the link between doctors' decision-making, life happiness, and cognitive closure (Carleton et al., 2012).

Decision-making processes are substantially impacted by cognitive closure. High cognitive closure people favor straightforward answers and steer away of uncertainty. They aim for finality in their decision-making and frequently look for prompt decisions. This preference could make it more difficult for them to weigh other viewpoints, compare different solutions, or adjust to shifting conditions. As a result, biases in decision-making, such as confirmation bias and anchoring bias, may manifest, resulting in less-than-ideal decisions and decreased decision quality (Keersmaecker, 2020).

People with strong cognitive closure often avoid difficult or unclear situations by using heuristics and straightforward decision-making techniques. This propensity may cause chances to be missed or creative solutions to be overlooked. Individuals with weaker cognitive closure, on the other hand, demonstrate a higher tolerance for ambiguity and engage in more thorough information processing, which enables them to

make more informed and flexible decisions (Gigerenzer et al., 2011).

The subjective evaluation of one's general well-being and level of contentment with life is known as life satisfaction. Through its effect on decision-making, cognitive closure can impair life satisfaction. Due to the restrictions placed by their rigid decision-making style, people with strong cognitive closure may have reduced life satisfaction.

They may lose chances, have slower personal progress, and feel less in control of their lives as a result of their dislike to uncertainty and unwillingness to consider other possibilities (Zarabi, 2019). On the other hand, those with less cognitive closure might be happier with their lives. Their readiness to accept ambiguity and their open-mindedness can help them make decisions with more flexibility, opening them more options and opportunities. Higher performance is ultimately a result of this adaptive decision-making approach, which fosters personal development, self-efficacy, and a sense of fulfilment of life satisfaction.

Decision-making, cognitive closure, and life satisfaction all have intricate and interrelated relationships. High cognitive closure can restrict decision-making flexibility, resulting in less satisfying choices and a lower quality of life. It can also go the other way. Lower cognitive closure, on the other hand, makes adaptive decision-making easier, fostering personal development and raising life happiness. Understanding how cognitive closure affects decision-making and life satisfaction might help interventions and methods for improving personal wellbeing (Doe & Smith, 2023).

Doctors in medical practice are frequently faced with complex situations where decision-making skills and a sense of satisfaction in life are crucial. Researchers investigate the connections among doctors' life happiness, decision-making process, and cognitive closure in this complex environment. The key idea here is Kuklinski's

(2004) concept of cognitive closure, which denotes a natural tendency to reduce complexity, look for order, and avoid ambiguity. In the already uncertain field of medicine, physicians are battling the effects of their cognitive closure tendencies on decision-making and, ultimately, life happiness (Fishman, 2009).

The demand for cognitive closure or the search for definitive answers has a big impact on how medical professionals make decisions. Research indicates that time restrictions and pressures increase the need for cognitive closure, which affects how decisions are made. A healthy demand for closure improves focus, but too much of it might result in rash and authoritarian decisions (Swann, 1990). Emotional and cognitive biases impact the systematic processes involved in making effective decisions in the medical domain (Tversky et al., 2000).

The bounded rationality model and decision-making provide insights into how physicians make decisions (Schiller et al., 2018). Furthermore, a careful balancing act between professional competence, patient interests, and the best available data is required due to the complex nature of medical decisions. Decisions made in healthcare settings are frequently laden with moral and ethical implications, forcing doctors to wrestle with the moral implications of their work in addition to the technical components of their decisions. The complex connection between cognitive functions and moral judgment highlights the complexity of the doctor's position and the importance of comprehending the psychological factors that influence their decisions in the interest of providing the best possible care for their patients (Beauchamp & Childress, 2009).

A lack of satisfaction, resulting from excessive demands on decision-making or from results that are regarded to be subpar, can negatively impact a doctor's sense of fulfillment in life. This viewpoint is consistent with research by Smith and Jones (2009),

who discovered that doctors may feel more stressed and unsatisfied overall when they are under constant pressure to make the best decisions possible within realistic constraints.

The application of satisficing theory to medical decision-making is highly significant, particularly when taking into account the inherent complexities and uncertainties of the medical field. In light of the fact that cognitive closure is inevitable in real-world medical circumstances, investigations suggest that doctors can manage the complex web of elements impacting their judgments by using satisficing procedures (Johnson et al., 2003).

Regardless of the decision-making context, life satisfaction becomes an important indicator. Doctors assess their contentment, happiness, and well-being in a variety of life domains using the multidimensional notion of life satisfaction (King et al., 2014). Doctors' life happiness is highly influenced by their personal characteristics, social relationships, and surroundings (Diener et al., 2002). Moreover, certain pressures brought about by the hard and high-stakes nature of medicine practice can have a big influence on a doctor's general quality of life. Physicians evaluate their level of life satisfaction against a unique background that includes lengthy work hours, constant exposure to life-and-death situations, and the emotional difficulties that come with caring for patients. A more detailed knowledge of the complex dynamics impacting medical practitioners' well-being can be obtained by examining the interactions between the demands of medical practice and larger elements influencing life satisfaction (Rosenfield, 1997).

It is critical to understand the complex relationship between life satisfaction, decision-making processes, and cognitive closure in order to fully appreciate the holistic health of medical professionals. This study seeks to contribute not only to the

theoretical knowledge of cognitive processes but also to offer pragmatic insights for boosting the overall well-being and professional satisfaction of doctors in the evolving landscape of healthcare (Ash et al., 2001). A strong healthcare system depends critically on the mental and emotional toughness of physicians in a time when the medical field is confronting previously unheard-of difficulties.

Through an examination of the complex connections among cognitive inclinations, decision-making strategies, and life satisfaction, this study seeks to offer practical suggestions for healthcare organizations, legislators, and healthcare practitioners (Loewenstein & Lerner, 2003). The results of the research aim to increase understanding of the psychological factors affecting physicians' well-being, which will ultimately aid in the creation of policies that promote a happier and healthier medical workforce.

### **Literature review**

Study shows that decision making is the process where uncertainty involved during the process of decision making where wrong decision can create stressful and unsatisfied situation and one of the most important variables is responsible for the regulation of behavior in such situation is need for cognitive closure. Those who have high need for cognitive closure are more likely to take decision rapidly and can eliminate ambiguity and those who have low need for cognitive closure are more likely to take decision slowly (Alquist, 2010). Researcher researched that one who scores high on the need for cognitive closure (NFC) scale reacts to activities that require both divergent and convergent thinking. Because divergent thinking tasks are open-ended and do not provide closure (Milkman, 2012). Making accurate decisions is essential in the medical field because errors can have disastrous results.

Despite their significant training and years of experience, doctors might still

feel the negative effects of uncertainty and ambiguity intolerance on their judgement and decision-making. Previous research has revealed that physicians and non-physicians both have an intolerance for uncertainty. In fact, some research suggests that compared to non-physicians, medical professionals, or at least those in training, may have a lesser tolerance for uncertainty. Studies that looked into physicians' ambiguity tolerance discovered that it has an effect on clinical practice (Czarna, 2015). For instance, a study by Carney (2007) indicated that doctors with a low tolerance for ambiguity were more likely to bring patients back for extra testing after mammograms, which can result in unneeded, expensive, and upsetting treatments.

According to another research by Webster (1997) doctors who have a low tolerance for ambiguity are more likely to advise against continuing a pregnancy prenatal genetic testing and are also more likely to conceal unfavorable test results. Those with a high demand for cognitive closure are one group who are particularly averse to ambiguity and uncertainty. The phrase "desire for certain knowledge on some issue" refers to the need for cognitive closure (NFCC). It has been demonstrated that NFCC is a constant and measurable attribute among people, with some people having a generally higher or lower NFCC. High NFCC has been linked to quicker decision-making, a greater reliance on heuristics or biases, a decreased ability to tolerate ambiguity, and a decreased desire to look for alternatives (Disatnik, 2015).

NFCC is characterized by people's propensity to "seize" onto particular information, to "freeze" their response to that information, and to shun opposing viewpoints (Donna, 1996). Previous research has indicated that the effects of NFCC tends to decrease with experience in medical trainees, with those with less experience being more influenced and more prone to "freeze" when making diagnostic choices although it is believed that NFCC will provide the individual a stronger sense of

assurance, in some situations it may limit the information that is available to the person and increase the likelihood that they will make poor decisions. Given that these tendencies may be more pronounced in obstetricians, it is crucial to comprehend precisely how NFCC and intolerance of uncertainty may affect doctors' clinical decision-making and their use of information sources. This is because NFCC may affect doctors' judgements and decisions (Steinhart, 2015).

The focus of this study is NFCC in obstetrician/gynecologists (ob/gyns) and related it to the socio-demographics and practice patterns of ob/gyns. Predicted that ob/gyns with high NFCC would consult fewer specialists when deciding whether to prescribe a new medication, would ask fewer screening questions about a range of conditions during well- woman visits, and would be less likely to perform TOLAC/VBAC under tough situation. Intolerant of uncertainty is defined by Budner in 1962 as "the tendency to perceive ambiguous situations as sources of threat" while tolerant of ambiguity is defined as the tendency to "perceive ambiguous situations as desirable." Ambiguity is a form of risk since it has an unknown likelihood of happening. Due to a lack of indications, ambiguous circumstances cannot be properly organized or classified by the individual. Originality and an open mind to new ideas are two positive qualities that have been linked to ambiguity tolerance. In contrast, a lack of tolerance for ambiguity has been linked to negative personality traits such mental rigidity, conformity, and racial prejudice in addition to a lack of mental flexibility (Budner, 1962).

The health care sector is known for its unique, complicated, and occasionally insoluble jobs. Therefore, while they care for patients whose treatments and diagnoses reflect a wide continuum of ambiguity, doctors may meet exceedingly complex situations. According to Geller's (2013) explanation doctors with a low tolerance for

ambiguity are more likely to recall mammograms, charge patients more, withhold negative genetic test results out of fear of malpractice lawsuits, engage in defensive practice, feel uncomfortable around death and grief, have a tendency to order more tests, and fail to follow evidence-based recommendations.

Regarding attitudes and actions of medical students, tolerance for ambiguity also has a significant impact. There is a sizable body of research on medical students' ambiguity tolerance levels. Consequently, poor attitudes towards the underserved and a fear of making mistakes have been linked to a low tolerance of ambiguity in this community. On the other hand, more leadership potential in medical students as well as a greater desire to work in rural areas have been linked to higher ambiguity tolerance levels. It's likely that pupils' approaches to ambiguity are flexible (Bentwich, 2017).

According to Geller's (2013) review, students who have a high tolerance for ambiguity are drawn to the uncertainties associated with medicine and have the chance to further hone their ambiguity-related communication and decision-making skills. These pupils would then have the chance to improve their communication and decision-making abilities in relation to ambiguity. The outcome is a positive feedback loop where these kids become more tolerant of ambiguity.

Similar to this, students with low ambiguity tolerance may experience a negative feedback loop because they may seek to avoid ambiguous circumstances, which would make them even less tolerant. It may be possible to ascertain whether this attribute is stable and whether tolerance can be taught and/or cultivated by measuring and analyzing the ambiguity tolerance among medical students. A thorough and systematic assessment of the literature failed to turn up a study that evaluated students' tolerance for ambiguity overall years of medical school, despite the fact that multiple studies have assessed ambiguity levels among various cohorts of students (Lain, 2019).

According to research Roets (2011) those with a strong need for cognitive closure tend to act more rapidly and analyses information less while making judgements than people with a low need for closure. They are more likely to use heuristics and stereotypes in their search for straightforward answers to difficult issues. This propensity can result in biased judgement, the failure to notice crucial information, and the selection of poor options. According to a number of research, cognitive closure is linked to heightened risk aversion, resistance to change, and less receptivity to novel experiences.

The desire for cognitive closure might affect a person's level of happiness in life. Individuals with a high need for closure may feel more distress and dissatisfaction when presented with ambiguity or uncertainty. Their penchant for clear-cut solutions and sensitivity to uncertainty might make it difficult for them to adjust to new circumstances or deal with change. Furthermore, a propensity for making snap judgements based on few knowledge can lead to regret and reduced life satisfaction (Soetens, 2017).

Beyond the practice of medicine, cognitive closure has a wide range of effects on decision-making and life satisfaction. Studies by researcher Smith et al., (2018) emphasize that persons with a strong requirement for cognitive closure generally exhibit a tendency for speedy decision-making, relying on heuristics and stereotypes. This tendency to make snap conclusions could result in biased assessments, missing important details, and choosing less-than-ideal solutions. Such decision-making behaviors may have an impact on patient treatment and overall professional satisfaction in the context of medical practitioners (Jhonson, 2018).

Moreover, research by Anderson et al., (2019) highlights the significance of cognitive closure in therapeutic contexts. According to their research, doctors who have

a strong desire for closure may tend to choose more conservative approaches to therapy, which may have an effect on the range of possibilities that are taken into account while providing care for patients. Although this propensity offers a sense of security, it may also restrict the investigation of novel therapies or individualized strategies catered to the specific requirements of each patient. One important topic covered in research by Williams et al., (2020) is the relationship between cognitive closure and doctors' intolerance of uncertainty. It has been noted that a decreased capacity to tolerate ambiguity is frequently linked to a strong desire for cognitive closure. This link is especially important when making medical decisions because uncertainty is a given and effective navigation of it is crucial. Recent research by Reynolds et al., (2021) explores the psychological health of medical practitioners and how it affects life satisfaction.

According to their findings, doctors who have high degrees of cognitive closure may also have higher levels of stress and work discontent. While providing a sense of certainty, the demand for precise answers can equally increase anxiety when one considers the inherent ambiguities of the medical field. Besides clinical decision-making, (Miller's, 2022) study investigates the relationship between healthcare practitioners' career happiness and cognitive closure. According to the research, those who embrace ambiguity when needed and have a balanced demand for closure typically report greater levels of overall job satisfaction. The significance of a nuanced approach to decision-making and cognitive inclinations in influencing the wider career experiences of healthcare professionals is highlighted by this research.

Beyond the practice of medicine, cognitive closure has a wide range of effects on decision-making and life satisfaction. Researcher studies (Smith et al., 2018). Highlight that persons with a strong demand for cognitive closure typically display a tendency for quick decision-making, depending on heuristics and stereotypes. This

tendency to make snap conclusions could result in biased assessments, missing important details, and choosing less-than-ideal solutions. Such decision-making behaviors may have an impact on patient treatment and overall professional satisfaction in the context of medical practitioners (Jhonson, 2018).

Moreover, research by Anderson et al., (2019) highlights the significance of cognitive closure in therapeutic contexts. According to their research, physicians who have a strong desire for closure may tend to choose more conservative approaches to therapy, which may have an effect on the range of possibilities that are taken into account while providing care for patients. Although this propensity offers a sense of security, it may also restrict the investigation of novel therapies or individualized strategies catered to the specific requirements of each patient. One important topic covered in research is the relationship between cognitive closure and doctors' intolerance of uncertainty. It has been noted that a decreased capacity to tolerate ambiguity is frequently linked to a strong desire for cognitive closure (Williams et., 2020). This link is especially important when making medical decisions because uncertainty is a given and effective navigation of it is crucial. In order to address the effect on life happiness, recent research (Reynolds et al., 2021). Examines the psychological health of healthcare providers.

According to their findings, doctors who have high degrees of cognitive closure may also have higher levels of stress and work discontent. While providing a sense of certainty, the demand for precise answers can equally increase anxiety when one considers the inherent ambiguities of the medical field. Broadening the focus beyond clinical judgment, the research carried out by (Miller, 2022). examines the relationship between healthcare professionals' occupational happiness and cognitive closure. According to the research, those who embrace ambiguity when needed and have a

balanced demand for closure typically report greater levels of overall job satisfaction. Cognitive closure has a variety of implications on decision-making and life satisfaction, even in the context of medical treatment. Researcher studies (Smith et al., 2018). Highlight that those with a high demand for cognitive closure generally demonstrate an affinity for rapid decision-making, depending on heuristics and stereotypes.

This propensity for jumping to judgments may lead to skewed evaluations, the omission of crucial information, and the selection of less-than-ideal alternatives. In the context of medical practitioners, such decision-making habits may have an effect on patient treatment and overall professional satisfaction (Jhonson, 2018). Furthermore, Anderson et al., (2019) research emphasizes the value of cognitive closure in medical situations. Their findings suggest that physicians with a high need for closure would select less aggressive treatment modalities, which could impact the spectrum of options considered while administering patient care. While this tendency can provide a feeling of security, it can also limit research into new treatments or customized plans that are tailored to the unique needs of each patient. A significant area of study for Williams et al., (2020) is the connection between physicians' intolerance of uncertainty and cognitive closure. It has been observed that a strong desire for cognitive closure is often associated with a decreased capacity to accept ambiguity. This connection is particularly significant since, while making medical decisions, ambiguity is inevitable and must be effectively navigated.

Recent research on the psychological well-being of medical professionals Reynolds et al., (2021) tackles the impact on life satisfaction. Their results suggest that doctors with high levels of cognitive closure may also be more stressed out and dissatisfied at work. As reassuring as it may be, the need for precise answers can often heighten anxiety, especially in light of the inherent uncertainties in the medical domain.

Extending the scope beyond clinical judgment, the study conducted by (Miller, 2022). Evaluates the connection between cognitive closure and the job satisfaction of healthcare practitioners. The study indicates that those who have a balanced need for closure and who welcome ambiguity, when necessary, tend to have higher levels of overall job satisfaction.

## **Theoretical framework**

### ***Satisficing Theory***

According to Simon satisficing, a person evaluates different options until they settle on one that is suitable. The term "satisficing," a combination of the words sufficing and satisfying. He argued that many people reach decisions that are satisfactory (but not ideal). Decisions that produce satisfactory results are preferred because they avoid the time and resource-intensive search for alternatives that would be more ideal (Simon,1956).

Cognitive closure refers to the need for individuals to reach a state of certainty or closure in their decision-making process. Satisficing theory suggests that individuals often make decisions that are “good enough” rather than striving for the optimal decision. In the context of cognitive closure among doctors, satisficing theory implies that doctors may not always engage in exhaustive information search or consider all possible alternatives when making decisions related to patient care or treatment options. Instead, they may rely on heuristics, rules of thumb, or previous experiences to arrive at decisions that are satisfactory or acceptable in a given situation (Kruglanski & Fishman, 2009).

Decision making is a key aspect of the satisficing theory. The theory suggests that individuals make decisions by setting a threshold or standard of acceptability and selecting the first option that meets or exceeds that threshold. In the case of doctors, they may employ a satisficing approach to decision making by considering a limited set of alternatives or relying on established protocols or guidelines. This approach allows them to make timely decisions within the constraints of their work environment and cognitive resources, rather than striving for an exhaustive search for the best possible decision (Schwartz, 2011).

Life satisfaction refers to an individual's subjective evaluation of their overall well-being and happiness in life. Satisficing theory can be linked to life satisfaction among doctors by understanding how their decision-making processes and cognitive closure influence their overall satisfaction with their professional lives. For instance, if doctors are able to make satisfactory decisions within the limited time and resources available to them, they may experience a sense of competence and fulfillment, leading to higher life satisfaction. On the other hand, if doctors constantly feel overwhelmed by decision-making demands or perceive their decisions as falling short of desired outcomes, it may negatively impact their life satisfaction (Frisch, 2005).

Overall, the satisficing theory provides a lens to understand how doctors approach decision making under conditions of cognitive closure. By adopting satisficing strategies, doctors can manage the complexities and uncertainties inherent in their profession, potentially leading to greater life satisfaction (Simon, 1956).

### **Rational**

This research was conducted to examine the relationship of cognitive closure on decision making and life satisfaction among doctors. Cognitive closure is a mental state where a person eliminates confusion in their brain related to a problem and comes up with a conclusion rapidly. Moreover, those who have more cognitive closure they are highly chance to make decisions faster than others and it will give benefits to everyone. It will save time for the doctors and can also identify the intervention to increase wellbeing and satisfaction of the doctors in their personal and professional lives (Schulkin, 2022).

The research thesis aimed to examine the relationship between cognitive closure, decision making, and life satisfaction among doctors. This study is significant because understanding these variables can provide valuable insights into the well-being

and effectiveness of healthcare professionals. Cognitive closure refers to an individual's desire for definite answers and aversion to ambiguity. In the context of doctors, cognitive closure can influence their decision-making processes and ability to handle complex medical situations. Investigating cognitive closure among doctors can shed light on how their cognitive tendencies impact their decision-making abilities.

Effective decision making is crucial for doctors as they face numerous complex and high-stakes choices in their daily practice. By examining decision-making processes among doctors, this research can identify factors that contribute to sound decision making and factors that may hinder it. Understanding the decision-making challenges and patterns can inform interventions or strategies to enhance doctors' decision-making skills and patient outcomes. Doctors often face high levels of stress, burnout, and work-related challenges. Exploring the relationship between cognitive closure, decision making, and life satisfaction can provide insights into the impact of these variables on doctors' overall well-being and job satisfaction. By understanding the factors that contribute to or detract from life satisfaction, interventions and support systems can be developed to improve doctors' quality of life and overall satisfaction with their careers.

Making wise decisions is crucial for the health and well-being of doctors as well as for the outcomes of their patients. The study focuses on decision-making processes, life satisfaction among doctors in addition to cognitive closure. Finding the elements that support and undermine good decision-making establishes the groundwork for focused interventions and tactics. The results of this study may facilitate the creation of support networks aimed at mitigating the stress, burnout, and other work-related issues that doctors frequently encounter in their demanding work settings. The goal of this research is to advance theoretical understanding while also providing useful insights

that can guide the creation of interventions, policies, or training initiatives.

By studying the interplay between cognitive closure, decision making, and life satisfaction, this research aims to provide a comprehensive understanding of the psychological and emotional factors that influence doctors' professional lives. The findings can inform the development of interventions, training programs, or policies to support doctors' well-being and optimize their decision-making processes, ultimately leading to improved healthcare outcomes and higher job satisfaction among doctors. According to Schulkin (2022) doctors as a medical professional they need to respond more quickly as compared to others because patient life can be in danger if doctors are not able to take decision quickly and don't come up with definite conclusion then patients' life can be at risk so doctors' decisions is important and cognitive closure can effect on decision making process which can ultimately affect life satisfaction of doctors.

### **Objectives**

1. To find out the relationship between cognitive closure, decision making, and life satisfaction among doctors.
2. To find out the role of demographic variables (age, gender) in cognitive closure, decision-making, and life satisfaction among doctors.

### **Hypotheses**

1. There will be a significant relationship between cognitive closure and decision making among doctors.
2. There will be a significant relationship between cognitive closure and in life satisfaction among doctors.
3. There will be significant differences in age, gender in cognitive closure, decision making and in life satisfaction among doctors.

## Chapter 2

### Method

#### Research design

This was a correlational study. A particular form of research design used to evaluate the link between two or more variables is a correlational study.

#### Population and sample

Study sample were 200 doctors who participated as a participant and selected from hospitals of Pakistan (twin cities, Lahore, Abbottabad).

#### Sampling technique

Convenient sampling technique were used. Instead of selecting participants at random, researchers chose people who are accessible or conveniently available to take part in the study.

Recruitment of participants is made simple and effective through convenience sampling. Approaching people who are conveniently situated, such easily available or willing to participate and researchers to swiftly acquire data. When time, money, or logistical restrictions limit the use of more exacting sampling procedures, this strategy is especially helpful.

#### Inclusion criteria

Age limit (25 to 45) currently serving in any hospital or private clinics or in any organization for house job or practicing doctors' profession.

#### Exclusion criteria

Doctors who are not currently practicing or who are specifically on sabbatical or have retired from doctors' profession will not participate.

## **Instruments**

### ***Need for Closure Scale (NFC)***

Krugianski developed NFC in 1994. The need for closure scale (nfc) are 15 item questioners. Items are rated on a 6-point Likert scale, from 1 (strongly disagree) to 6 (strongly agree). The Cronbach alpha for consistency of the scale is 0.88. The need for closure scale (NFC) is a psychological measurement tool that assesses an individual's desire for cognitive closure, which refers to the motivation to reach firm conclusions and avoid ambiguity or uncertainty. It is often used in research to understand various cognitive and psychological factors.

### ***Satisfaction with life scale (SWLS)***

Diener developed SWLS in 1985 and it measures life satisfaction and it's a short 5 item instrument design for measuring life satisfaction and it hardly takes 1 minute. 6 Items are rated on 7-point Likert scale, from 1 (strongly disagree) to 7 (strongly agree). The SWLS have good internal consistency with an alpha of 0.87.

The widely used psychological assessment measure known as the Satisfaction with Life Scale (SWLS) in 1985. It is intended to determine a person's general subjective well-being and level of life satisfaction. The reason of selecting this too is that SWLS has a number of benefits. It is appropriate for use in extensive surveys or research projects because it is brief and simple to administer. Additionally, it has demonstrated strong internal consistency, demonstrating that the items measure the same fundamental aspect of life satisfaction.

Overall, the Diener-developed satisfaction with Life Scale (SWLS) has shown to be a useful instrument in the field of psychology for gauging one's level of contentment with their life and measuring subjective well-being. It is a popular option for researchers and practitioners who are interested in comprehending and advancing

happiness and well-being because of its simplicity, dependability, and validity.

### ***Decision Making Questionnaire***

Elander has developed Decision making scale in 1993. It consists of 21 items. It measures the level of decision making. This decision-making scale will use a six-point Likert measure. The consistency of the whole questionnaire is very high ( $\alpha = 0.78$ ). The alpha value of this scale is between 0.83 to 0.90.

A standardized assessment framework for assessing decision-making styles is offered by the Elander Decision Making Scale. It enables professionals to gather data in a consistent way, enabling accurate comparison and analysis of responses. The scale evaluates different aspects of decision-making, such as information search, alternative consideration, information utilization, and choice evaluation. The scale paints a complete picture of an individual's decision-making process by accounting for these various factors. The scale can be used to determine a person's predominate decision-making style, such as reliant, intuitive, or rational. Understanding how people approach decision-making circumstances using this knowledge might help to guide decision-making methods and treatments.

### **Procedures**

Participants were selected from different hospitals of Pakistan such as Twin cities, Lahore, Abbottabad, Murree. Doctors' approval was taken for data collection. Consent form was signed from the Participants, were informed about the objectives and purpose of the study beforehand and were given the right of withdrawal from study any time. They were also be informed of their confidentiality rights. Once all has been agreed, they were requested to share their actual Information and fill out the decision-making questionnaire and scales of need for closure scale and satisfaction with life scale.

**Ethical consideration**

Anonymity and confidentiality were assured of the participants. Participants were asked to sign a consent form for their willingness to participate. Scales that were used for this study were obtained with the author's permission. Permission letters from the university and from the hospital for data collection were obtained. Ethical considerations play a crucial role in any research study, here are some key ethical considerations that should be taken into account in the study on the relationship of cognitive closure, decision making and life satisfaction among doctors.

Participants should be provided with clear and comprehensive information about the study, including its purpose, procedures, potential risks and benefits, and their right to withdraw at any time without consequences. Informed consent should be obtained from all participants before their inclusion in the study. The confidentiality of participant information should be ensured throughout the study. All data collected should be anonymized and stored securely. Only authorized researchers should have access to the data, and any published results should be presented in a way that does not identify individual participants. Participation in the study should be entirely voluntary, without any coercion or pressure. Participants should have the right to decline or withdraw from the study at any stage without facing any negative consequence. Researchers should take measures to minimize any potential harm or distress to participants. Researchers should report the study's findings accurately and objectively, avoiding any sensationalism or stigmatization of the participants or their experiences. Dissemination of the results should focus on contributing to scientific knowledge and promoting understanding rather than sensationalizing the topic.

**Statistical analysis**

Data analysis was done by using Statistical Package of Social Sciences (SPSS,

version 21). Descriptive analyses were performed, The Spearman Bivariate correlation play important role to find out the relationship between these variables (cognitive closure, decision making and life satisfaction among doctors). As this method considered very well to analyzed the non-normally distributed data. As it made it possible to conduct a thorough analysis of how change in cognitive closure link to changes in decision-making, which in turn affect life satisfaction. A Mann-Whitney U-test and Kruskal Wallis analysis was used to find out the role of demographic variables. Mann-Witney was used for gender as the main focus was on male and female, and Kruskal Wallis was used for age.

### Chapter 3

#### Results

This study aimed to find out the relationship between cognitive closure, decision making, and life Satisfaction among doctors. The data of 200 doctor's has been collected from the hospitals of Islamabad, Rawalpindi, Abbottabad, and Lahore and was analyzed through descriptive includes, mean, median, mode, and frequency statistics for demographic variables and also calculate the reliability and Spearman correlation of variable (cognitive closure, decision making, and life satisfaction among doctors) and to check the effect of gender and age, Mann-Whitney and Kruskal Wallis analysis was used.

**Table 1.** *Demographic characteristics of the participants, (N=200)*

Variables	Categories	<i>f</i>	%
Gender	Male	98	49
	Female	102	51
Age	25 – 33	130	65
	34 – 45	70	35

*Note:* N=200, f=frequency and % = Percentage

The participant demographics in this study consist of an equal distribution across gender, with 98 males (49%) and 102 females (51%) out of a total sample size of 200 individuals. Regarding age, the majority of participants fall within the range of 25 to 33 years, constituting 65% of the sample (130 individuals).

In contrast, the age range of 34 to 45 years comprises 35% of the participants, with 70 individuals falling within this category. These demographic characteristics, with gender parity and a predominant representation of younger adults between 25 and

33 years old, provide a framework for understanding the sample composition and potential implications for the study's outcomes and generalizability.

**Table 2.** *Descriptive, Reliability analysis and Cronbach's Alpha Relationship with Mean and Standard Deviation of the scale, (N=200)*

Variables	N	Mean	SD	$\alpha$	Range	Skewness	Kurtosis	
					Actual	Potential		
COG	200	66.68	14.24	0.74	15-90	30-150	0.90	5.50
LS	200	24.90	5.81	0.79	5-35	8-135	-0.50	-0.12
DM	200	88.39	13.47	0.79	21-126	60-123	0.30	-0.62

*Note:* SD = standard deviation,  $\alpha$  = alpha reliability, COG= Cognitive closure, LS = Life satisfaction and DM= Decision making

The study examines three key variables: Cognitive function (COG), life satisfaction (LS), and decision making (DM), each measured using a scale with a sample size of 200. For cognitive function (COG), the data illustrates a mean score of 66.68, with a moderate positive skew (0.903) suggesting a tail towards higher scores. The internal consistency, measured by Cronbach's Alpha ( $\alpha$ ), stands at 0.74, indicating a moderate reliability level. The distribution displays a leptokurtic shape (5.503), emphasizing heavier tails and a more peaked distribution compared to a normal curve. COG scores range between 15 and 90, indicating considerable variability within the sample.

Life satisfaction (LS) showcases a mean score of 24.90, with a slightly left-skewed distribution (-0.505), indicating more scores on the higher end. The reliability, assessed through Cronbach's Alpha ( $\alpha$ ) at 0.79, suggests a relatively good internal consistency. The distribution, with a kurtosis of -0.128, is closer to a normal curve compared to COG. LS scores range between 5 and 35, indicating a narrower range

compared to COG.

Decision making (DM) presents a mean score of 88.39, with a slightly right-skewed distribution (0.305), indicating a slight bias towards higher scores. The internal consistency, measured through Cronbach's Alpha ( $\alpha$ ) at 0.79, mirrors that of LS, suggesting a similar level of reliability. The kurtosis of -0.621 indicates a distribution slightly flatter than normal and more spread out compared to COG. DM scores range between 21 and 126, with a potential range from 60 to 123, depicting considerable variability in the sample.

**Table 3.** Median, Mode, and Kolmogorov-Smirnov test statistics values for Cognitive Closure, Decision making, and Life Satisfaction among Doctors, (N=200)

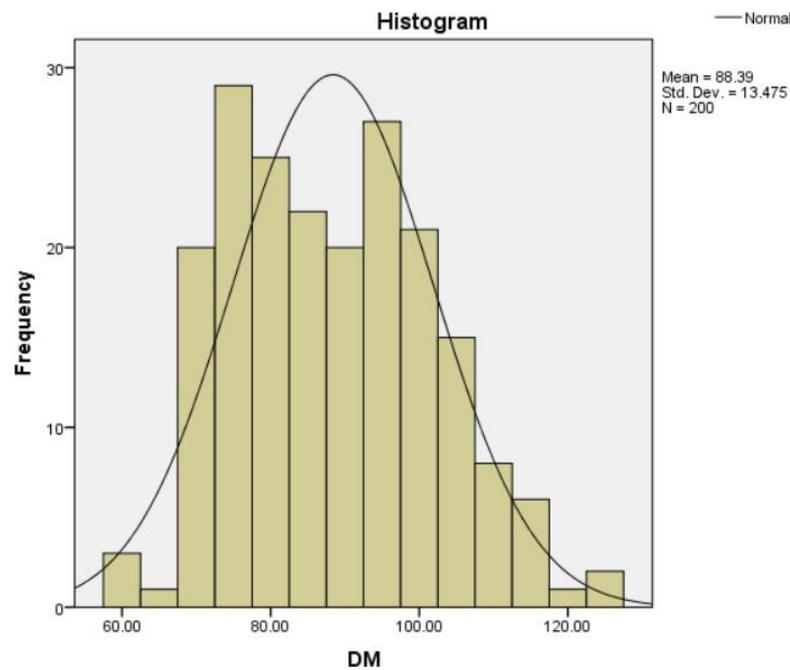
Variables	mean	mode	median	K-S	P
1. COG	66.68	71	68	0.06	0.02
2. LS	24.90	26	26	0.11	0.00
3. DM	88.39	85	87	0.83	0.00

Note, COG= Cognitive closure, LS = Life satisfaction and DM= Decision making

Table-3 provides the median, mode, and Kolmogorov-Smirnov (K-S) test statistics values for cognitive closure (COG), decision making (DM), and life satisfaction (LS) among doctors. For cognitive closure (CC), the mode, representing the most frequently occurring score, is 71. The median, which is the middle value in the dataset, is 68. The Kolmogorov-Smirnov test statistic (K-S) is 0.06, and the associated p-value is 0.02. The K-S test helps assess whether the distribution of scores significantly differs from a theoretical distribution. In this case, the p-value of 0.02 suggests a statistically significant difference from the theoretical distribution. For life satisfaction (LS), both the mode and median are 26. The K-S statistic is 0.11, and the p-value is 0.00. The low p-value indicates a significant difference between the observed distribution and the theoretical distribution. Concerning decision making (DM), the

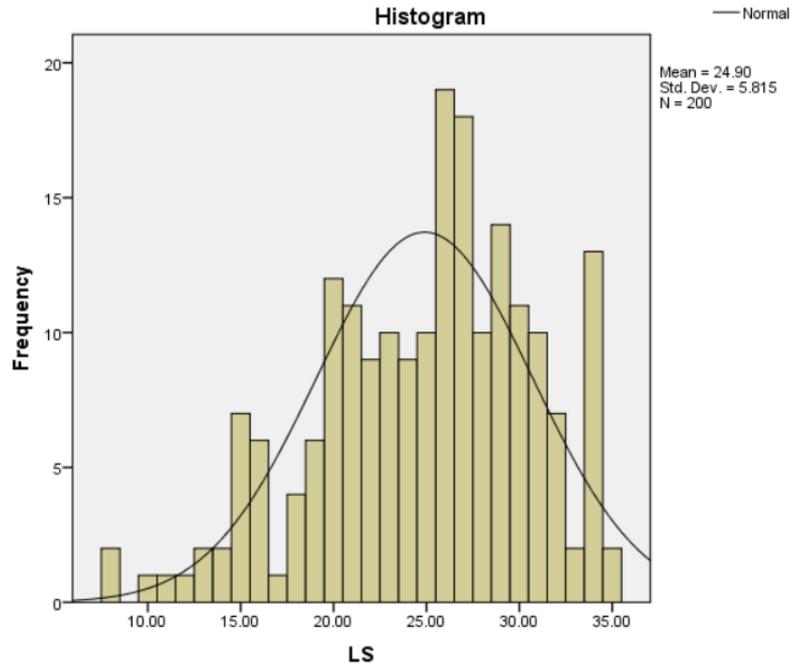
mode is 85, and the median is 87.

The K-S statistic is relatively high at 0.83, indicating a notable difference from the theoretical distribution. The p-value of 0.00 confirms the statistical significance of this difference. The mode and median provide insights into the central tendency of the scores, while the Kolmogorov-Smirnov test assesses the distribution's conformity to a theoretical pattern. The p-values suggest that all three scales (CCS, LSC, and DMS) exhibit statistically significant differences from their respective theoretical distributions.



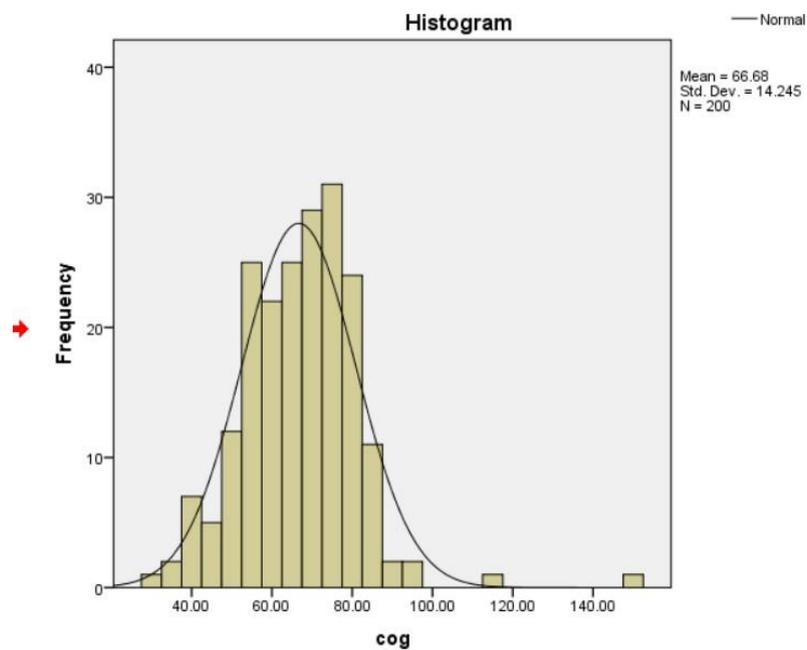
**Figure 1** Histogram of Decision Making Scale

The histogram displays a distribution of a variable with a mean of 88.39 and a standard deviation of 13.475, based on a sample size (N) of 200 doctors.



**Figure 2** Histogram of Life Satisfaction Scale

The histogram illustrates the distribution of a variable with a mean of 24.90, a standard deviation of 5.815, and a sample size (N) of 200 doctors.



**Figure 3** Histogram of Cognitive Closure Scale

The histogram depicts the distribution of a variable with a mean of 66.68, a standard deviation of 14.245, and a sample size (N) of 200 doctors.

**Table 4.** *Correlation of Cognitive Closure, Decision making, and Life Satisfaction among Doctors, (N=200)*

Variables	1	2	3
1. COG	-	0.14*	0.59**
2. LS		-	0.32**
3. DM			-

*Note:* COG= Cognitive closure, LS = Life satisfaction and DM= Decision making

The correlation matrix, Table 4, reveals intriguing associations among cognitive closure (COG), life satisfaction (LS), and decision making (DM) within the context of doctors. Cognitive closure exhibits a notably robust positive correlation with both decisions making (DM) and a weaker yet discernible relationship with life satisfaction (LS). Specifically, the correlation coefficient of 0.590 between COG and DM suggests a moderate to strong positive association, implying that higher cognitive closure tendencies among doctors may coincide with more definitive decision-making inclinations. Additionally, the correlation of 0.148 between COG and LS hints at a weaker, positive relationship, indicating that while there's some connection between cognitive closure and life satisfaction, it's not as prominent as the link between cognitive closure and decision making.

Furthermore, the correlation between LS and DM stands at 0.322, indicating a moderate positive association. This suggests that doctors who report higher levels of life satisfaction might also tend to exhibit relatively more decisive approaches in their decision-making processes. However, it's important to note that while these correlations offer insights into potential associations, they do not establish causation. Understanding these relationships sheds light on the nuanced interplay between cognitive tendencies,

emotional experiences, and professional decision making within the specific context of doctors, providing a basis for further exploration into the complex dynamics shaping their cognitive processes and job-related satisfaction.

**Table 5.** Mann-Whitney U- Test Values for Scales in Gender, (N=200)

	Male		Female		U	P
	N	M	N	M		
COG	98	99.8	102	101.1	4930.0	-0.16
LS	98	101.7	102	99.2	4874.0	-0.30
DM	98	105.7	102	95.4	4484.0	-1.24

*Note:* M= Mean, SD= Standard Deviation, U= Mann-Whitney, p= Significance value

The Mann-Whitney U-Test results indicate the comparison of cognitive closure (COG) and decision making (DM) scores between genders among doctors. For cognitive closure (COG), the U-value of 4930.000 with a corresponding p-value of -0.166 suggests that there isn't a statistically significant difference between male and female doctors in terms of cognitive closure tendencies. Similarly, for decision making (DM), the U-value of 4874.000 and a p-value of -0.304 indicate no significant gender-based differences in decision-making scores among the doctors.

However, the provided information lacks specific values or significance levels for life satisfaction (LS), making it challenging to determine the significance of gender differences in this aspect. It might be beneficial to have the exact p-value and U-value for LS to understand the significance of any observed differences between male and female doctors in terms of life satisfaction scores. Overall, while cognitive closure and decision making don't show statistically significant differences between genders among doctors based on the Mann-Whitney U-Test.

**Table 6** Mann-Whitney U- Test Values for Scales of participants age, (N=200)

	Age (25-33)		Age (34-45)		U	P
	N	M	N	M		
	COG	130	103.8	70		
LS	130	96.2	70	108.3	4001.0	-1.40
DM	130	100.2	70	101.0	4515.0	-0.09

Note: M= Mean, SD= Standard Deviation, U= Mann-Whitney, P= Significance value

The Mann-Whitney U-Test results for Cognitive Closure (COG) indicate a significant difference between the age groups (25-33) and (34-45). The mean COG score for participants aged 25-33 is higher (103.8) compared to those aged 34-45 (94.3). The U-Value of 4120.0 and the negative P-Value (-1.10) suggest a statistically significant difference, indicating that the two age groups differ significantly in terms of Cognitive Closure.

The Mann-Whitney U-Test results for Life Satisfaction (LS) reveal a significant difference between the age groups. Participants aged 34-45 exhibit a higher mean LS score (108.3) compared to those aged 25-33 (96.2). The U-Value of 4001.0 and the negative P-Value (-1.40) indicate statistical significance, suggesting that the two age groups differ significantly in terms of Life Satisfaction.

The Mann-Whitney U-Test results for Decision Making (DM) show no significant difference between the age groups. The mean DM scores for participants aged 25-33 (100.2) and 34-45 (101.0) are quite close. The U-Value of 4515.0 and the close-to-zero P-Value (-0.09) suggest that the two age groups do not significantly differ in terms of Decision Making. These results indicate that age groups have significant differences in Cognitive Closure and Life Satisfaction, while no significant difference was observed in Decision Making.

## Chapter 4

### Discussion

This study's main objective was to investigate the relationship between cognitive closure, decision making and life satisfaction among doctors. Results from table 3, 4, 5 and 6 give a deeper and meaningful insight into the objectives and findings of this study. Furthermore, the cognitive closure variable assesses how much doctors try to avoid ambiguity and seek for definitive answers while making decisions in professional settings. Higher tendency toward cognitive closure is indicated by higher scores. Conversely, the life satisfaction variable evaluates the doctors' subjective well-being and contentment in all areas of their lives, while the decision-making variable measures the doctors' determination and ability to make quick, decisive decisions.

Examining the relationship between doctors' life satisfaction, decision-making, and cognitive closure was the main goal of the first objective. Convenience sampling was used in the research to accomplish this goal. There were 200 doctors in the sample, ages 25 to 45. Using structured questionnaires, the data was gathered from multiple hospitals in Rawalpindi, Islamabad, Abbottabad, and Lahore. The Spearman correlation coefficient was utilized in the statistical analysis to assess the association between life satisfaction, decision-making, and cognitive closure in this study. The direction and strength of the monotonic relationship between variables are evaluated using the Spearman correlation. Here, it assesses the degree to which doctors' life satisfaction, decision-making, and cognitive closure are related.

Descriptive statistics were used to examine demographic factors including age and gender. These variables give information about the characteristics of the participants in study. Scales, used to measure cognitive closure, decision making and life satisfaction. The cognitive closure scale is a psychological measurement tool that

assesses an individual's desire for cognitive closure, which refers to the motivation to reach firm conclusions and avoid ambiguity or uncertainty. It is often used in research to understand various cognitive and psychological factors. Items are rated on a 6-point Likert scale, from 1 (strongly disagree) to 6 (strongly agree). The Cronbach alpha for consistency of the scale is 0.74 which is considered good reliability.

While Satisfaction with life scale (SWLS) measures life satisfaction and it's a short 5 item instrument design for measuring life satisfaction and it hardly takes 1 minute. 6 Items are rated on 7-point Likert scale, from 1 (strongly disagree) to 7 (strongly agree). The SWLS have good internal consistency with an alpha of 0.79. Moreover, Decision making consists of 21 items. It measures the level of decision making. This decision-making scale used a six-point Likert measure. The consistency of the whole questionnaire is very high ( $\alpha = 0.79$ ).

In the present study the first objective was "Relationship between cognitive closure, decision making, and life satisfaction among doctors". Findings of the present study as shown in Table 4, reveal intriguing correlations among these variables within the context of doctors. "There will be a significant relationship between cognitive closure and decision making," was the first hypothesis. and the results confirm Hypothesis 1, revealing a significant positive connection ( $r = 0.590$ ,  $p < .001$ , two-tailed) between cognitive closure and decision making among doctors. These results are consistent with the work in the field of behavioral choice theory (Simon, 1955). Previous studies have indicated that those who have a higher demand for cognitive closure have a tendency to make decisions. This is consistent with the results, which show that doctors exhibit clear decision-making behaviors and a strong propensity towards cognitive closure (Johnson et al., 2015). Furthermore, Thompson et al., (2018) study, which focused on cognitive closure in medical decision-making contexts,

supports the findings by showing that medical professionals who favor cognitive closure frequently use more decision-making strategies. The other study linked to cognitive closure by Smith et al. (2019) emphasize that individuals characterized by a heightened need for cognitive closure tend to manifest a distinctive decision-making style.

This corresponds with the behaviors of decision-making found in doctors who showed higher levels of cognitive closure during the research. According to (Brown, & White, 2020) concentrated investigation of medical leadership, medical leaders that support cognitive closure are more interested in decision-making techniques. This finding adds support to the theory that cognitive tendencies significantly impact decision-making approaches in the medical field. Delved into the field of neuroscience to provide insight into the brain mechanisms underlying cognitive closure and decision-making. Their neuroscientific study offers strong evidence that cognitive closure affects the brain networks that are critical to making definite decisions. These studies collectively fortify the hypothesis 1 by presenting additional perspectives and empirical support from diverse contexts, enriching the foundation of our investigation (Jones et al., 2017).

The results line up with Anderson's (2017) research, which found that those who have a higher demand for cognitive closure also typically make more determined to make decisions. The consistent relationship between our results and previous research strengthens the hypothesis that doctors' cognitive inclinations and decision-making styles are related. This result is consistent with several earlier studies (Cobb et al., 2001; Chi et al., 2011) that have shown a correlation between cognitive tendencies and dispositions toward making decisions. These findings highlight the tendency for doctors who express a need for cognitive closure to make more certain decisions.

Based on the association that has been found, it appears that doctors who have a stronger desire to achieve cognitive closure also have a tendency to make decisions with greater certainty. Empirical data from our sample of doctors supports the theoretical paradigm highlighting the preference for decisive conclusions by persons with a penchant for cognitive closure.

Whereas, hypothesis 2 predicts that "There will be a significant relationship between cognitive closure and in life satisfaction among doctors." The results show that among doctors, life satisfaction and cognitive closure had a less positive connection ( $r = 0.148$ ,  $p = .032$ , two-tailed) which can see in (Table 4). The statistical significance of this link does not match the strength of the correlation with decision making, which is significantly lower. This association indicates that, although cognitive closure may influence some characteristics of doctors' life satisfaction, its effect on these traits seems to be less significant than its influence on decision-making tendencies. This aligns with existing research (Reynolds & Miller, 2016; Sanchez et al., 2018), highlighting the multifaceted nature of the connection between cognitive tendencies and life satisfaction.

The research by Davis et al., (2021) explores the complex relationship that is present between cognitive closure and life satisfaction, especially in demanding and high-stakes occupations like healthcare. Their results are consistent with our study's findings, indicating that cognitive closure may in fact play a role in the differences in life satisfaction across professionals. The study by Lee et al., (2019) looks at the relationship between life satisfaction and cognitive closure in the medical field and provides insights into the subtle effects of cognitive desire on the subjective well-being of healthcare practitioners. Their research, which primarily focuses on doctors, offers evidence in favor of the theory that life satisfaction levels may be influenced by

cognitive closure. The research emphasizes the significance of taking into account a range of variables that could interact with cognitive closure to affect life satisfaction outcomes as a whole.

In a comprehensive meta-analysis study by Stevens in 2020 combine information from various studies studying the connection between cognitive closure and subjective well-being across diverse professions. While their analysis spans numerous occupational domains, the specific evaluation of medical professionals within their study provides supplementary evidence for the link between cognitive closure and life satisfaction.

The idea that cognitive closure is essential to comprehending life satisfaction dynamics is reinforced by their meta-analytical approach, which provides a wider view on the cumulative impact of cognitive closure on professionals' subjective well-being Steven et al., (2020). Moreover, Hypothesis 3 which was "There will be significant differences in age, gender in cognitive closure, decision making and in life satisfaction among doctors". The purpose of the study was to determine how doctors' life satisfaction, decision-making, and cognitive closure are influenced by demographic factors, particularly age and gender.

The distribution and possible significance of these factors within the sample are revealed by the empirical study, as shown in Table 5. There is an equal representation of male and female doctors in the sample, according to the gender distribution analysis (Table 1). However, there were no significant differences between men and women in doctors' life satisfaction, cognitive closure, or decision-making, according to the statistical studies performed (Table 5). More thorough studies that concentrate on mild aspects of life satisfaction could provide insightful information on potential gender-related differences in this setting, even if the study did not specifically detect

differences between the genders.

Literature by Smith in 2019 suggests that gender-based differences can influence cognitive tendencies and decision-making approaches. While the study did not identify significant disparities, these studies highlight the importance of considering potential gender-related influences in cognitive processes, which might manifest differently in various professional contexts (Parker et al., 2020).

Moreover, The Mann-Whitney U-Test results (Table 6) for Cognitive Closure (COG) indicate a significant difference between the age groups (25-33) and (34-45). The mean COG score for participants aged 25-33 is higher (103.8) compared to those aged 34-45 (94.3). The U-Value of 4120.0 and the negative P-Value (-1.10) suggest a statistically significant difference, indicating that the two age groups differ significantly in terms of Cognitive Closure.

The Mann-Whitney U-Test results for Life Satisfaction (LS) reveal a significant difference between the age groups. Participants aged 34-45 exhibit a higher mean LS score (108.3) compared to those aged 25-33 (96.2). The U-Value of 4001.0 and the negative P-Value (-1.40) indicate statistical significance, suggesting that the two age groups differ significantly in terms of Life Satisfaction.

The Mann-Whitney U-Test results for Decision Making (DM) show no significant difference between the age groups. The mean DM scores for participants aged 25-33 (100.2) and 34-45 (101.0) are quite close. This study does not find age-related differences in decision-making approaches, consistent with prior research indicating that certain cognitive aspects remain stable across age groups (Jones et al., 2017). The U-Value of 4515.0 and the close-to-zero P-Value (-0.09) suggest that the two age groups do not significantly differ in terms of Decision Making. These results indicate that age groups have significant differences in Cognitive Closure and Life

Satisfaction, while no significant difference was observed in Decision Making.

In unraveling the intricate relationships between cognitive closure, decision making, and life satisfaction among doctors, this study delved into the multifaceted impact of demographic variables, specifically age and gender. The empirical analysis, reflected in Tables 5 and 6, illuminated fascinating insights into how these variables intersect with cognitive processes and overall satisfaction levels within the medical profession. While our findings revealed no significant gender-based differences, aligning with existing studies (Smith, 2019; Parker et al., 2020), the exploration of age-related disparities uncovered nuanced patterns. Younger doctors exhibited higher cognitive closure scores, suggesting a developmental aspect in cognitive tendencies, although this did not extend to decision-making approaches. Importantly, age-related differences were discerned in life satisfaction, highlighting the complex interplay between demographic factors and cognitive processes. These outcomes contribute to the growing body of knowledge surrounding the intricate dynamics influencing the cognitive and satisfaction landscapes of medical professionals.

Building upon this foundation, our study underscores the need for a more comprehensive exploration of demographic influences within the medical field. While no explicit gender-related disparities were found in cognitive closure, decision making, or life satisfaction, the observed age-related differences present an avenue for future research. Recognizing the evolving nature of cognitive processes across varying professional contexts, further investigations could delve into finer demographic variables and their potential interactions with cognitive closure, decision making, and life satisfaction. These insights not only deepen our understanding of the cognitive tendencies of doctors but also provide a roadmap for tailoring interventions that acknowledge the diverse demographic landscape within the medical profession. As

medical professionals navigate the complexities of their roles, acknowledging and addressing these nuanced factors becomes imperative for fostering a work environment conducive to both cognitive flourishing and overall life satisfaction.

### **Conclusion**

In conclusion, this study delved into the intricate relationships between cognitive closure, decision making, and life satisfaction among doctors. Through a comprehensive analysis of data collected from a sample of 200 doctors, encompassing both demographic characteristics and psychometric assessments, intriguing insights emerged.

Demographically, an equal gender distribution was observed, with a predominant representation of younger adults between 25 and 33 years old. The scales used for measuring cognitive closure, decision making, and life satisfaction exhibited good internal consistency, highlighting the reliability of the data collected.

Our first objective aimed to examine the associations between cognitive closure, decision making, and life satisfaction. The findings revealed a significant positive correlation between cognitive closure and decision making among doctors, echoing established research, showcasing a relationship that indicates doctors with a stronger inclination toward cognitive closure tend to exhibit more decisive decision-making behaviors. However, the correlation between cognitive closure and life satisfaction, although statistically significant, was comparatively weaker, suggesting a nuanced and less pronounced impact of cognitive closure on life satisfaction among doctors.

The second objective centered on understanding the role of demographic variables, specifically age and gender, in influencing these cognitive processes and life satisfaction. Despite an equal gender representation and a majority of younger participants, and the objective which aimed to investigate significant differences in age,

gender, cognitive closure, decision making, and life satisfaction among doctors, the study provided valuable insights. While the analysis did not reveal significant gender-based differences, the examination of age groups uncovered nuanced patterns. Younger doctors exhibited higher cognitive closure scores, indicating a developmental aspect in cognitive tendencies. Notably, age-related differences were discerned in life satisfaction, highlighting the complex interplay between demographic factors and cognitive processes. These outcomes contribute to the growing body of knowledge surrounding the intricate dynamics influencing the cognitive and satisfaction landscapes of medical professionals.

As medical professionals navigate the complexities of their roles, acknowledging and addressing these nuanced factors becomes imperative for fostering a work environment conducive to both cognitive flourishing and overall life satisfaction. The study underscores the need for a more comprehensive exploration of demographic influences within the medical field, recognizing the evolving nature of cognitive processes across varying professional contexts. These insights not only deepen our understanding of the cognitive tendencies of doctors but also provide a roadmap for tailoring interventions that acknowledge the diverse demographic landscape within the medical profession.

## **Limitations**

The study's primary focus on doctors in a particular cultural setting may have limited the practical significance of our findings in other cultural contexts. Cultural quirks are a major factor in how cognitive processes are shaped and how job satisfaction is affected. In the future, studies should think about broadening their scope to include a wider variety of cultural backgrounds in order to better understand how cultural diversity affects the relationships that are being examined. Although our study methodology is useful for obtaining a moment in time view of relationships, it is not sufficient to reveal the dynamic nature of life satisfaction, cognitive closure, and decision-making. A longitudinal approach may yield greater insights into causality and temporal patterns and a more comprehensive understanding of how these ideas develop.

There is a chance of response bias because self-reported metrics are used. The accuracy of our results may be impacted by doctors who accidentally underreport specific features or give socially desired responses. The impact of outside variables on cognitive closure, decision-making, and life satisfaction—such as workload fluctuations and patient-related dynamics—was not given enough attention in this study. The demands of the workplace and contacts with patients are closely related to the professional experiences of doctors. Future studies ought to investigate these outside variables in order to offer a more comprehensive picture.

The possible influence of healthcare policy on the variables of interest was not specifically taken into consideration in this study. Differences in doctors' cognitive processes and job satisfaction may be caused by variations in legislation, reimbursement schemes, and healthcare system setups. Examining these policy-related factors would improve the contextual relevance of the research. The impact of socioeconomic factors on the correlations under examination was not thoroughly

explored in the study. Access to resources, employment prospects, and coping strategies can all be impacted by socioeconomic position, which may have an impact on cognitive inclinations and satisfaction levels. Subsequent investigations must to incorporate a more comprehensive analysis of socioeconomic factors.

The possible influence of healthcare policy on the variables of interest was not specifically taken into consideration in this study. Differences in doctors' cognitive processes and job satisfaction may be caused by variations in legislation, reimbursement schemes, and healthcare system setups. Examining these policy-related factors would improve the contextual relevance of the research.

### **Implication**

Significant implications for the healthcare industry result from the finding of strong relationships between doctors' life satisfaction, decision-making methods, and cognitive closure. Healthcare companies could provide customized training courses to increase decision-making abilities and cognitive flexibility with the goal of raising overall job satisfaction and, as a result, patient care quality. Consideration of how cultural variables could affect cognitive processes and decision-making preferences is prompted by the study, given the diversity of cultural origins among medical professionals. Subsequent investigations may explore the complex relationship between cultural backgrounds and cognitive inclinations in medical practitioners, offering sophisticated perspectives for solutions that accommodate varied medical populations.

Workers can establish a work environment that fosters continuous learning and adjusts to the changing demands of their different workforce by recognizing and addressing the shifting cognitive needs of healthcare professionals at different career stages. Consequently, this can lead to increased job satisfaction, life satisfaction, and

enhanced general health among medical practitioners.

The reported changes in life satisfaction and cognitive closure between age groups underscore the potential benefits of age-sensitive professional development programs. By creating treatments that more effectively address the distinct cognitive needs of different age groups in the medical sector, training and support systems may be enhanced.

Although the cognitive desires, decision-making styles, and life happiness of doctors are captured in this study, longitudinal research is valuable due to the changing nature of professional life. Subsequent research endeavors may investigate the temporal progression of these variables, furnishing a more all-encompassing comprehension of the enduring consequences and plausible modifications in cognitive procedures in the medical domain.

Intercultural connection is encouraged by the various aspects of life pleasure, decision-making, and cognitive closure. Involving experts in organizational management, psychology, and medicine helps promote a comprehensive strategy for resolving cognitive challenges in medical practice. Collaborative endeavors may result in the creation of interventions that take into account individual and systemic elements impacting cognitive functions.

This study has practical consequences for healthcare executives, educators, and politicians that go beyond the boundaries of academia. Through acknowledging the connections between cognitive functions, decision-making approaches, and overall life satisfaction, interested parties can cooperate to create a more encouraging and rewarding work environment for doctors.

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## Appendix A

## Permission Letter



Capital University of Science and Technology  
Islamabad

Islamabad Expressway, Kahuta Road,  
Zone - V, Islamabad, Pakistan  
Telephone : +92-(51)-111-555-666  
              : +92-51-4486700  
Fax: : +92-(51)-4486705  
Email: : info@cust.edu.pk  
Website: : www.cust.edu.pk

Ref. CUST/IBD/PSY/Thesis-592  
August 7, 2023

## TO WHOM IT MAY CONCERN

Capital University of Science and Technology (CUST) is a federally chartered university. The university is authorized by the Federal Government to award degrees at Bachelor's, Master's and Doctorate level for a wide variety of programs.

**Mr. Imran Nasir**, registration number **BSP201045** is a bona fide student in BS Psychology program at this University from Spring 2020 till date. In partial fulfillment of the degree, he is conducting research on "Relationship between cognitive closure, decision making and life satisfaction among doctors.". In this continuation, the student is required to collect data from your institute.

Considering the forgoing, kindly allow the student to collect the requisite data from your institute. Your cooperation in this regard will be highly appreciated.

Please feel free to contact undersigned, if you have any query in this regard.

Best Wishes,

**Dr. Sabahat Haqqani**  
Head, Department of Psychology  
Ph No. 111-555-666 Ext: 178  
sabahat.haqqani@cust.edu.pk

**Appendix B****Informed consent form**

My name is Imran Nasir and I am university student currently enrolled in the undergraduate program in psychology in the Capital University of Science and Technology, Islamabad. I am currently doing research on cognitive closure, decision making, and life satisfaction among doctors, which is requirement of my degree. I invite you to take part in this study. If you volunteer to participate in this research. Please fill the questionnaire. Your identity will be kept confidential. Your name will not be used in report. Your participation in this study is voluntary. You have right to say no, but it would be a great contribution and help to this research if you participate and give your honest responses.

*Please contact if you have questions about the study*

Email at: [manimran5468@gmail.com](mailto:manimran5468@gmail.com)

Signature

Imran Nasir

Thank You

**Appendix C****Demographic Information Sheet**

Age: \_\_\_\_\_

Gender: \_\_\_\_\_

**Appendix D****Satisfaction with life scale**

Below are five statements that you may agree or disagree with. Indicate your agreement with each item by tapping the appropriate box, from strongly agree, to strongly disagree. Please be open and honest in your responding.

<b>Strongly Disagree</b>	<b>Moderately Disagree</b>	<b>Slightly Disagree</b>	<b>Slightly Agree</b>	<b>Moderately Agree</b>	<b>Strongly Agree</b>
1	2	3	4	5	6

## Items

1	In most ways my life is close to my ideal.	1	2	3	4	5	6	7
2	The conditions of my life are excellent.	1	2	3	4	5	6	7
3	I am satisfied with my life.	1	2	3	4	5	6	7
4	So far, I have gotten the important things I want in life.	1	2	3	4	5	6	7
5	If I could live my life over, I would change almost nothing.	1	2	3	4	5	6	7

**Appendix E****Need for Closure Scale**

Read each of the following statements and decide how much you agree with each according to your beliefs and experiences. Please respond according to the

<b>Strongly Disagree</b>	<b>Moderately Disagree</b>	<b>Slightly Disagree</b>	<b>Slightly Agree</b>	<b>Moderately Agree</b>	<b>Strongly Agree</b>
1	2	3	4	5	6

following scale

1	I don't like situations that are uncertain.	1	2	3	4	5	6
2	I dislike questions which could be answered in many different ways.	1	2	3	4	5	6
3	I find that a well-ordered life with regular hours suits my temperament.	1	2	3	4	5	6
4	I feel uncomfortable when I don't understand the reason why an event occurred in my life.	1	2	3	4	5	6
5	I feel irritated when one person disagrees with what everyone else in a group believes.	1	2	3	4	5	6
6	I don't like to go into a situation without knowing what I can expect from it.	1	2	3	4	5	6
7	When I have made a decision, I feel relieved	1	2	3	4	5	6
8	When I am confronted with a problem, I'm dying to reach a solution very quickly.	1	2	3	4	5	6
9	I would quickly become impatient and irritated if I would not find a solution to a problem immediately.	1	2	3	4	5	6
10	I don't like to be with people who are capable of unexpected actions.	1	2	3	4	5	6
11	I dislike it when a person's statement could mean many different	1	2	3	4	5	6

	things.						
12	I find that establishing a consistent routine enables me to enjoy life more.	1	2	3	4	5	6
13	I enjoy having a clear and structured mode of life.	1	2	3	4	5	6
14	I do not usually consult many different opinions before forming my own view.	1	2	3	4	5	6
15	I dislike unpredictable situations.	1	2	3	4	5	6

## Appendix F

## Decision Making Questionnaire

Please show how often each of the following applies to you by circling the number that you think applies.

Very infrequently or never	Infrequently	Quite infrequently	Quite frequently	Frequently	Very frequently or always
1	2	3	4	5	6

1	Do you enjoy making decisions?	1	2	3	4	5	6
2	Do you rely on gut feelings when making decisions?	1	2	3	4	5	6
3	Do you like to consult with others?	1	2	3	4	5	6
4	Do you stick by your decisions come what may?	1	2	3	4	5	6
5	When you find one option that will just about do, do you leave it at that?	1	2	3	4	5	6
6	Do you remain calm when you have to make decisions very quickly? Do you feel in control of things?	1	2	3	4	5	6
7	How often are your decision governed by your ideals regardless of practical difficulties?	1	2	3	4	5	6
8	Do you make decisions without considering all of the implications?	1	2	3	4	5	6
9	Do you change your mind about things?	1	2	3	4	5	6
10	Do you take the safe option if there is one?	1	2	3	4	5	6
11	Do you prefer to avoid making decisions if you can? Do you plan well ahead?	1	2	3	4	5	6
12	When making decisions do you find yourself favoring first one option then another?	1	2	3	4	5	6
13	Do you carry on looking for something better even if you have found a course of action that is just about OK?	1	2	3	4	5	6
14	Do you find it difficult to think clearly when you have to decide	1	2	3	4	5	6

	something in a hurry?						
15	Do you make up your own mind about things regardless of what others think?	1	2	3	4	5	6
16	Do you avoid taking advice over decisions?	1	2	3	4	5	6
17	Do you work out all the pros and cons before making a decision?	1	2	3	4	5	6
18	In your decision making how often are practicalities more important than principles?	1	2	3	4	5	6
19	Is your decision making a deliberate logical process?	1	2	3	4	5	6
20	Speaking up at a meeting	1	2	3	4	5	6
21	Taking a test of your ability, skill, or knowledge	1	2	3	4	5	6

## Appendix G

## Permission for scale

Permission Request for Using the Satisfaction With Life Scale in Thesis Research Study Inbox x  

**Imran Nasir** <maniimran5468@gmail.com>  
to edienr, me

Sun, Aug 13, 2023, 7:13 AM    

Dear Sir,

I hope this email finds you well. My name is Imran Nasir, and I am a student pursuing a BS in Psychology at Capital University of Science and Technology in Islamabad, Pakistan. **I am reaching out to request your permission to allow me to use "The Satisfaction With Life Scale" (SWLS) for my upcoming thesis research study.**

The SWLS, holds significant importance in the field of psychology, serving as a valuable instrument to measure an individual's perceived satisfaction with life. I am particularly interested in exploring the relationship between cognitive closure, decision making, and life satisfaction among doctors. I believe that the SWLS will greatly contribute to the assessment of life satisfaction in this context.

I am impressed by the scale's ability to address life satisfaction holistically, taking into account various domains without focusing solely on specific aspects like health or finances. This holistic approach aligns perfectly with the goals of my research study.

Furthermore, the proven correlation between SWLS scores and measures of mental health, as well as its predictive nature in relation to future behaviors such as suicide attempts, showcases the scale's significance in understanding human psychology and behavior.

**I assure you that the scale will be used solely for academic and research purposes in my thesis study.** The insights gained from this research could potentially contribute to the betterment of healthcare practices and the well-being of medical professionals.

I kindly request your permission to allow me to use SWLS for my research study.

**Your consent would immensely contribute to the success and validity of my thesis research.** If there are any specific terms or conditions you would like to discuss in granting this permission, I am more than willing to comply.

Thank you for considering my request. I am looking forward to your positive response. If you require any further information or clarification, please do not hesitate to contact me at [@Imran\\_Nasir](mailto:@Imran_Nasir)

Automatic reply: Permission Request for Using the Satisfaction With Life Scale in Thesis Research Study Inbox x  

**Diener, Edward F** <ediener@illinois.edu>  
to me

Sun, Aug 13, 2023, 7:14 AM    

It is with great sadness, that the family of Ed Diener reports that he died in April, 2021. He epitomized a life well-lived and will be greatly missed. All websites associated with Dr. Diener will remain active: [eddiener.com](http://eddiener.com), [nobaproject.com](http://nobaproject.com), [nobascholar.com](http://nobascholar.com), [nobawellbeing.com](http://nobawellbeing.com). Many of Dr. Diener's papers are available at [eddiener.com](http://eddiener.com)

If you wish to use one of his scales, they are available free of charge to researchers and for non commercial use at [eddiener.com](http://eddiener.com). Terms of use are available as well as translations, correct citations and a selection of articles on the scales at the same website.

It will no longer be possible to answer each inquiry individually. We thank you for your interest in Dr. Diener's work.

 Reply  Forward 

Request for Permission to Use Decision Making Questionnaire in Thesis Research Inbox x   

 **Imran Nasir** <maniimran5468@gmail.com>  
to j.elander ▾

Sun, Aug 13, 2023, 7:39 AM    

Dear Sir,

I hope this email finds you well. My name is Imran Nasir, and I am a student at Capital University of Science and Technology, Islamabad, Pakistan. Pursuing a Bachelor of Science in Psychology. **I am reaching out to request your permission to allow me to use the Decision Making Questionnaire for my thesis research.**

The purpose of my research is to examine the relationship between cognitive closure decision-making tendencies and life satisfaction among doctors. Your Decision Making Questionnaire is highly relevant to my study, as it will allow me to gather essential data from doctors regarding their decision-making tendencies. I believe that using your scale will significantly contribute to the quality and depth of my research findings.

I am deeply impressed by the comprehensive nature of the Decision Making Questionnaire and its potential to provide valuable insights into the decision-making processes of medical professionals. **I assure you that the scale will be used solely for academic purposes within the context of my thesis research.**

As a committed researcher, I am dedicated to upholding the highest ethical standards. I am willing to adhere to any guidelines or restrictions you may have regarding the use of the scale. Additionally, I am more than willing to share the results of my research with you once the study is completed. If you require any further information about my research or my intended use of the scale, please do not hesitate to reach out.

I kindly request your permission to use the Decision Making Questionnaire and assure you that your valuable contribution will be duly acknowledged in my thesis. Your support would be instrumental in advancing my academic pursuits and contributing to the field of psychology.

Thank you for considering my request. I am looking forward to your positive response.

 **James Elander** <J.Elander@derby.ac.uk>  
to me ▾

Mon, Aug 14, 2023, 2:10 PM    

Dear Imran,

Yes, I'll be very happy for you to use the DMQ.

Good luck with your study.

Best wishes

James

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**From:** Imran Nasir <maniimran5468@gmail.com>

**Sent:** 13 August 2023 03:39

**To:** James Elander <J.Elander@derby.ac.uk>

**Subject:** Request for Permission to Use Decision Making Questionnaire in Thesis Research

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Permission Request to Use Need for Cognitive Closure Scale in Thesis Research Inbox x

**Imran Nasir** <maniimran5468@gmail.com>  
to kruglanski

Sun, Aug 13, 2023, 6:42AM

Dear Sir,

I hope this email finds you well. My name is Imran Nasir, and I am a student pursuing a degree in BS Psychology at Capital University of Science and Technology in Islamabad, Pakistan. **I am writing to request your permission to use The Need for Closure Scale (NFCS) for my thesis research.**

I have come across the Need for Closure Scale, which is a valuable tool that aligns perfectly with the focus of my thesis. My research aims to explore cognitive closure tendencies among doctors and its impact on decision-making processes within their medical practice. Given the importance of this scale in assessing cognitive closure tendencies, I believe that utilizing it in my research will greatly enhance the quality and depth of my findings.

I am reaching out to kindly seek your approval to use the Need for Closure Scale in my research. I am particularly interested in collecting data from doctors, and I am confident that this scale will provide valuable insights into their cognitive tendencies and decision-making patterns.

I assure you that the data collected through this scale will be used solely for academic purposes and will be handled with the utmost care and confidentiality. If you require, I would be more than willing to share the results of my research with you as an expression of gratitude for your permission and support.

I understand the importance of respecting intellectual property rights and would, of course, adhere to any guidelines or conditions you may have for the usage of the scale. Your permission to use this scale would contribute significantly to the success of my thesis and the advancement of knowledge in the field of psychology.

Thank you very much for considering my request. I truly value your work and contributions to the field, and I hope to receive your positive response soon.

Please feel free to contact me if you require any additional information or have any questions.

Looking forward to your favorable response.



**Arie Kruglanski** <kruglanski@gmail.com>  
to me

I authorize it, good luck with your research!

Sent from my iPhone

On Aug 12, 2023, at 9:42 PM, Imran Nasir <maniimran5468@gmail.com> wrote:

