

EXPLORING RELATIONSHIP BETWEEN  
NARCISSISTIC PERSONALITY TRAITS,  
HOSTILE ATTRIBUTION BIAS AND SOCIAL  
CONTROL AMONG OFFENDERS



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January, 2024

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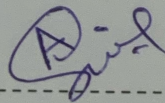
A Research Thesis submitted to the  
DEPARTMENT OF PSYCHOLOGY  
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## CERTIFICATE OF APPROVAL

It is certified that the Research thesis titled “Exploring Relationship between Narcissistic Personality Traits, Hostile Attribution Bias and Social Control among Offenders” Carried Out By Muneeba, Reg. No. Bsp201033, under the supervision of Ms. Asima Munawar, Capital University of Science & Technology, Islamabad, is fully adequate, in scope and in quality, as a Research Thesis for the degree of BS Psychology.

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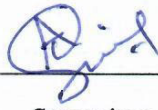
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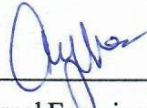
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## **DECLARATION**

It is declared that this is an original piece of my own work, except where otherwise acknowledged in text and references. This work has not been submitted in any form for another degree or diploma at any university or other institution for tertiary education and shall not be submitted by me in future for obtaining any degree from this or any other University or Institution.

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**January, 2024**

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Muneeba

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## **Abstract**

This correlational study aimed to investigate the relationship between narcissistic personality traits, hostile attribution bias, and social control among a sample, N = 200, male and female offenders. This study utilized Narcissistic Personality Inventory-16, Hostile Attribution Bias subscale of Social Information Processing - Attribution Bias Questionnaire (SIP-ABQ), and The Social Bonding Scale. Convenient sampling was employed to collect data from offenders from Central Jail in Rawalpindi. Data was analyzed using SPSS software. The study utilizes correlational analysis to scrutinize the connections between the specified variables. Additionally, demographic variables are investigated through the application of the Man-Whitney U-Test and Kruskal-Wallis test. The results reveal significant correlations, shedding light on the complex dynamics between narcissistic personality traits, hostile attribution bias, and social control within the context of the offender population. The results also highlight significant regression relationships between the variables, indicating robust associations within the data. These findings suggest a strong predictive capacity of the independent variables on the dependent variable

**Keywords:** Narcissistic Personality Traits, Hostile Attribution Bias, Social Control, Crime

## Chapter 1

### Introduction

Criminology has evolved into an interdisciplinary domain, where research focus has diversified to encompass a wide range of risk factors associated with criminal behavior, spanning from individual-level to environmental-level considerations (Walklate, 2016). Crime, an expansive concept encompassing a wide array of activities that society deems detrimental, illegitimate, and subject to governmental punishment (Henry et al., 2001), presents a multifaceted phenomenon within a given society. It encompasses a broad spectrum of illicit behaviors, perpetrated by individuals or collectives, resulting in harm to others, destruction of property, or disruption of the established social cohesion. Various manifestations of crime include acts of violence, property offenses, sophisticated white-collar transgressions, organized illicit enterprises, and cybernetic misconducts (Lamond, 2007).

Human conduct, perpetually in flux, reflects the influence of diverse factors such as age, race, gender, culture, environment, and socio-economic status. Similarly, an individual's proclivity for engaging in criminal acts emerges from a complex interplay of multifarious biological, psychological, and sociological elements. Psychological factors, such as personality traits and cognitive distortions, play a crucial role in shaping an individual's decision-making process. Sociological factors, encompassing family dynamics, peer relationships, and socio-economic conditions, further contribute to the intricate web of influences shaping criminal tendencies. Recognizing the intricate nature of these factors is essential for a comprehensive understanding of the complexities surrounding human behavior and criminal conduct. (Hill, 2002).

Nonetheless, several scholars have posited that personality traits wield greater predictive power in discerning criminal behavior than socio-demographic or socio-economic indicators (Tharshini et al., 2021). The emergence of criminal behavior among offenders can be attributed to an intricate amalgamation of cognitive, social, and personal factors, each interplaying and influencing one another to shape an individual's propensity for engaging in illegal actions (Bandura, 2023). These factors collectively form an intricate web of causality, contributing to the understanding of criminal behavior and guiding the development of targeted interventions and preventive measures in the realm of criminology.

### ***Personality***

Personality is defined as the intricate and enduring pattern of distinctive psychological characteristics that govern an individual's responses to stimuli, shaping their behavioral tendencies, emotional distinctions, and cognitive dispositions. It encompasses a wide range of traits, patterns, and qualities that make each person distinct (Cervone & Pervin, 2022). It is not baseless to contemplate how personality traits could shape an individual's inclination to partake in criminal or offensive activities, given their potential impact on overall well-being, happiness, and even vulnerability to maladies. Significantly, narcissistic personality traits have been identified as a potential harbinger of criminal conduct (Tharshini et al., 2021).

### ***Narcissistic Personality Traits***

Narcissistic personality traits, characterized by an inflated sense of self-importance, a lack of empathy, and a constant need for admiration (American Psychiatric Association, 2013), exert a profound influence on criminal behavior. These traits can significantly heighten the likelihood of individuals engaging in unlawful activities. Individuals exhibiting narcissistic tendencies often exhibit an exaggerated

perception of their own significance, perpetually seeking external validation and adulation while displaying a distinct lack of concern for the emotions and welfare of others. This self-centered mindset can drive them to manipulate and exploit those around them to fulfill their own desires, with little regard for the rights or well-being of their victims. In the realm of criminal behavior, narcissistic individuals may be particularly predisposed to committing acts of fraud, theft, or even violence. Driven by an insatiable sense of entitlement and grandiosity, they may be motivated to acquire financial gain, power, or attention through illicit means. In pursuit of their objectives, they employ tactics of manipulation and deception, capitalizing on others' vulnerabilities and disregarding the potential repercussions of their actions (Lowenstein et al., 2016).

Moreover, the lack of empathy inherent in narcissistic individuals contributes to a striking disregard for the suffering or harm they inflict upon others (Baskin-Sommers et al., 2014). They possess a remarkable ability to rationalize their actions and justify their behavior, serving to uphold their self-image and safeguard their inflated ego. Consequently, they experience a diminished capacity for experiencing remorse or guilt for their criminal transgressions, thereby fueling their inclination toward engaging in further unlawful activities (Krizan & Herlache, 2018). It is crucial to acknowledge that the relationship between narcissism and criminal behavior is intricate and multifaceted. While individuals with narcissistic traits may be predisposed to criminal conduct, it is essential to recognize that not all individuals exhibiting narcissistic tendencies will display such behavior. Many individuals with narcissistic traits may channel their desires for admiration and success into more socially acceptable domains, avoiding the realm of criminality altogether. In addition to personal factors, cognitive

factors also contribute to delinquent behavior, further elucidating the complexity underlying criminal conduct.

### ***Hostile Attribution Bias***

Research has consistently demonstrated that individuals who possess a tendency to attribute hostile intentions to others are more prone to engaging in criminal behavior (Pornari & Wood, 2010). This cognitive phenomenon is known as a hostile attribution bias, which refers to the inclination to interpret ambiguous situations as having hostile intentions rather than benign ones (Wang et al., 2019). In essence, individuals exhibiting this bias tend to perceive threats or malevolence even in situations that are unclear or open to alternative interpretations.

The presence of a hostile attribution bias often leads individuals to inaccurately assume that others are acting with hostility or negativity, even when the true intentions are uncertain. Consequently, this biased perception can trigger a heightened sense of defensiveness and potential misunderstandings during social interactions. Moreover, studies have linked the hostile attribution bias to an increased risk of engaging in criminal behavior.

Individuals with a hostile attribution bias are more prone to interpreting the actions of others as deliberately aggressive, even when such intentions may not exist (Schönenberg & Jusyte, 2014). Consequently, their response tends to be characterized by heightened aggression or antisocial behavior. This misinterpretation of others' intentions can significantly influence their behavioral reactions, ultimately increasing the likelihood of engaging in criminal acts (Tuente et al., 2019).

### ***Social Control***

Social control, as conceptualized by Travis Hirschi, refers to the regulation and enforcement of societal norms with the belief that stronger social bonds to family, religious, civic, and other groups reduce the likelihood of committing crimes (Hirschi, 2001). Hirschi's social bonding theory or social control theory proposes that an individual's inclination towards deviant or criminal behavior is influenced by the strength of their bonds to society. According to Hirschi, social control can be understood in terms of four key elements of social bonding: Attachment, Commitment, Involvement, and Belief.

Attachment refers to the emotional connection and bonds that individuals have with significant others, such as family, friends, or mentors. Strong attachment provides individuals with a sense of belonging and support, making them less likely to engage in criminal acts. Commitment refers to the investment individuals have in conventional goals, such as education, career, or family. The more committed individuals are to these goals, the less inclined they are to jeopardize them through criminal behavior. Involvement refers to engagement in conventional activities, such as extracurricular activities, sports, or community service, which occupy individuals' time and energies, leaving less room for delinquency. Belief refers to the acceptance and internalization of societal values and norms. When individuals strongly believe in the legitimacy of societal rules, they are less likely to engage in criminal acts (Hirschi, 2001).

Hirschi's social bonding theory suggests that the presence of these social bonds fosters social control, acting as deterrents against delinquency and criminal behavior. On the other hand, weak social bonds can increase the probability of individuals engaging in deviant acts, as they lack the attachments, commitments, involvements, and beliefs that deter them from such behavior.

It is essential to acknowledge that Hirschi's social bonding theory is just one perspective in understanding social control and deviance. Other theories, such as strain theory or social learning theory, offer additional insights into the complex interplay between social factors and individual behavior (Hirschi, 2001).

The effectiveness of social control in deterring criminal behavior is influenced by both formal and informal mechanisms. Formal mechanisms encompass the presence of legal systems and law enforcement agencies. Laws define what behaviors are considered criminal and establish penalties for those who violate them. The existence of a well-functioning legal system acts as a deterrent, as individuals are aware of the potential consequences of engaging in criminal activities.

Informal social control, on the other hand, relies on social norms, values, and expectations. These informal mechanisms guide individuals' behavior through the influence of family, friends, and community members. Strong social bonds, a sense of belonging, and positive socialization can deter individuals from engaging in criminal behavior, as they fear negative social sanctions, such as disapproval, exclusion, or loss of reputation (J. Sampson, 1986).

Furthermore, various institutions such as schools, religious organizations, and community programs contribute to social control by promoting prosocial behaviors, providing support networks, and offering alternatives to criminal activities. Education, for instance, equips individuals with knowledge, skills, and values that discourage criminal behavior and encourage productive and law-abiding lives.



## **Literature review**

A considerable body of research has consistently demonstrated that personal characteristics serve as a reliable indicator of criminal behavior, irrespective of factors such as gender, race, age, or location (Tharshini et al., 2021). A recent study conducted by Kjærviik and Bushman (2021) highlighted the relationship between narcissism and aggression, revealing that narcissistic individuals exhibited a 21% increase in aggressive behavior and an 18% increase in violent tendencies. This finding underscores the potential influence of narcissistic traits on the propensity for aggression and antisocial acts.

Similarly, Hepper et al. (2014) conducted an extensive investigation into the association between narcissism and violent offending. Their study yielded significant results, demonstrating a positive correlation between narcissistic traits, specifically grandiosity and entitlement, and a history of violent behavior. The research postulated that individuals with high levels of narcissism may display a heightened inclination toward aggression and antisocial conduct due to their inflated sense of self-importance and the belief that they are entitled to special treatment.

It is important to recognize that narcissism is a complex construct, encompassing a range of behaviors and psychological characteristics. Individuals with narcissistic traits tend to exhibit an excessive preoccupation with themselves, an inflated self-image, and a sense of superiority. These traits may lead them to disregard the rights and well-being of others, resulting in behaviors that deviate from societal norms and laws.

The manifestation of narcissistic traits in criminal behavior can take various forms. For instance, narcissistic individuals may engage in fraudulent activities, theft, or even violent crimes driven by their heightened sense of entitlement, the desire for

financial gain, power, or attention through unlawful means (Lamond, 2007; Lowenstein et al., 2016). Exploitation and manipulation of others may become tactics utilized by narcissistic individuals to achieve their objectives, often disregarding the adverse consequences of their actions.

Moreover, narcissistic individuals are often characterized by a lack of empathy, which further contributes to their engagement in criminal behavior (Baskin-Sommers et al., 2014). Their diminished capacity for understanding and experiencing the emotions of others leads them to disregard the suffering or harm they inflict on others. This lack of empathy may serve as a psychological barrier, reducing the likelihood of feeling remorse or guilt for their criminal acts and further fueling their propensity for unlawful activities (Krizan & Herlache, 2018).

It is important to note that while narcissistic traits can be a significant factor in predicting criminal behavior, not all individuals with narcissism will exhibit such tendencies. Many individuals with narcissistic traits may channel their desires for admiration and success into more socially acceptable domains, such as business or entertainment, rather than resorting to criminal activities (Tharshini et al., 2021).

The study found evidence for age-related differences in narcissism, suggesting that narcissistic traits may change as individuals grow older. Specifically, younger individuals tended to exhibit higher levels of narcissism compared to older individuals (Wilson & Sibley, 2011).

Another study by Perri (2011) focused on the relationship between narcissism and various forms of criminal behavior. The research indicated that narcissistic individuals had a higher likelihood of engaging in white-collar crimes, such as fraud and embezzlement, as well as non-violent offenses. The study suggested that

narcissistic individuals may be more motivated by financial gain and the desire for personal success, leading them to engage in illegal activities.

The reflection of narcissistic tendencies in criminal conduct is varied from the range of illegal behavior. In accordance with (Grapsas et al., 2022), narcissistic individuals may commit fraud crimes, theft or even violent offences. The feeling of entitlement and the drive to gain money, power or unfair attention through criminal activities are highly motivating factors for narcissistic individuals driving them towards crime. These observations enlarge the view given to how narcissistic attributes may result in individuals deviating from societal rules and laws (Martínez-Ferrero et al., 2023).

A study conducted by Larson et al. (2015), found that men tend to exhibit higher levels of narcissism compared to women. This suggests that men may be more likely to display self-centered, grandiose, and entitled personality traits associated with narcissism.

According to its fundamentals by Son in 2023, narcissism consists of excessive self-preoccupation, a grandiose ego projection and arrogance. These attributes can take different forms, impacting on the individual relationships with society and eventually driving him/her towards crime. This critical line of inquiry provides the necessary outlook for illuminating the links between self-centeredness, entitlement, and violence that contribute to crime (Son, 2023).

NPT and criminality do not have a straightforward linear relationship, but rather an intricate interplay influenced by numerous factors. According to Biesen & Smith, 2023 study, there is a significant relationship between narcissism and aggression. Narcissistic individuals, who often boast about themselves, showed a rise of 21% in their self-centered behavior, and there was an 18% increase in their inclination towards

violent tendencies. This finding is crucial for understanding how Narcissistic Personality Traits (NPT) may influence the likelihood of engaging in aggressive and antisocial behaviors (Biesen & Smith, 2023).

The study of Wang et al., 2024 continues to explore the relationship between narcissism and violent offending, emphasizing grandiosity and entitlement factors. People with more narcissistic traits are likely to see themselves as special and deserving of favoritism, which could include a violent past. This insight elaborates the complex ways in which some aspects of narcissistic traits, including entitlement play a role in violent actions (Wang et al., 2024).

However, it should be noted that not all individuals with narcissistic character traits will behave criminally (Grapsas et al., 2022). According to Williams, 2023, many individuals having narcissistic traits may transform their desire for approval and triumph into more socially recognized areas like business or entertainment. This differentiation is fundamental for understanding the complexity of narcissism and its diverse expressions in various individuals (Williams, 2023).

This implies that narcissism is more prevalent in the younger generation, and therefore their traits may be age-restricted. The narcissism trajectory and those of its implications for crime are also complicated by the specificity in terms of this temporal dimension.

One potential mechanism by which narcissism may contribute to criminal behavior is through the development of hostile attribution bias. A research shows individuals with narcissism may display a tendency to make a hostile attribution bias, where they are suspicious and mistrustful of others' motives (Bodecka et al., 2021), it increases their likelihood of engaging in criminal behavior in response to perceived threats.

This crucial element of this rather intricate scheme “Exploring Relationship between Narcissistic Personality Traits and Hostile Attribution Bias,” demonstrates the connection between domains ‘NPT’ to another domain ‘Hostile Awakening’. This allows us to realize that narcissistic individuals can see the social plane with a paranoid eye and so become hostile towards them when in fear.

The researches show that the relationships between Hostile Attribution Bias and maladaptive behavior are stronger among males than females (Gagnon & Rochat, 2017). Due to its increased criminal connection, Hostile Attribution Bias may be more effectual in narcissistic men (Chen et al., 2012).

Research has shown a significant association between hostile attribution bias and criminal behavior. A study examined the role of hostile attribution bias in aggressive behavior among a sample of adolescent. The findings revealed that individuals with a higher level of hostile attribution bias were more likely to engage in aggressive acts and display conduct problems, which are precursors to criminal behavior (Martinelli et al., 2018).

Secondly, the literature emphasizes a strong relationship between Hostile Attribution Bias and criminality. According to Bondü (2018), the level of Hostile Attribution Bias was positively associated with aggressive behavior and conduct problems, serving as predictors for criminality. This insight enriches our understanding of possible behavioral consequences resulting from Hostile Attribution Bias and the role it plays in determining early markers of criminality (Bondü, 2018).

The study conducted by Foster et al., (2023) among adolescent inmates expands such an analysis, since it proves that individuals with a relatively strong Hostile Attribution Bias were more likely to have previous violent offenses and had higher recidivism rates. This provides a clear nexus between Hostile Attribution Bias and

criminal recidivism, highlighting the lingering effects of biased social expectations on continued perpetuation among criminals already within the sphere of justice.

The literature continues with (Helfritz-Sinville & Stanford, 2014) and expands on this, arguing that Hostile Attribution Bias can explain part of the relations between psychopathy narcissism and generalized aggression. In this manner, the mediator function of Hostile Attribution Bias shows a cognitive attribute that suggests people with elevated levels of psychopathy or narcissism are apt to assume aggressive intentions towards others and therefore result in violence. This understanding suggests looking at Hostile Attribution Bias as the cognitive mediator that is a part of complex interrelations between personality traits and aggressive disposition.

When considering Hostile Attribution Bias's implications for criminal decision-making, its cognitive basis becomes all more important. Thus, people who possess narcissistic traits like a ceaseless craving for an audience and domination over their surrounding population may be more exposed to Hostile Attribution Bias-based interpretations; therefore they respond aggressively towards indeterminate signals (Milburn et al., 2014).

Hostile Attribution Bias takes place as an important link between narcissistic theory and actions taken by people applying for criminal justice process. This much of this cognitive bias is a consequence of narcissistic traits, shapes perceptions and reactions from which the psychological mechanics behind criminal behaviour are visible. Hence, the findings on Hostile Attribution Bias form a foundation for future research into its intermediary function in Narcissistic Personality Traits-Social Control relation and pathways that offenders go through while interacting with society.

Gagnon et al. (2017) conducted a study examining the relationship between hostile attribution bias and violent offending in a sample of imprisoned adolescents.

The results demonstrated that individuals with a pronounced hostile attribution bias were more likely to have a history of violent offenses and were at a higher risk for recidivism. The study investigated the role of hostile attribution bias as a mediator in the relationships between psychopathy, narcissism, and aggression.

The findings of a study by Law and Falkenbach (2017) suggest that hostile attribution bias partially explains the links between psychopathy and aggression, as well as between narcissism and aggression. In other words, individuals with higher levels of psychopathy or narcissism tend to exhibit a tendency to attribute hostile intentions to others, which, in turn, contributes to their engagement in aggressive behavior. The study highlights the importance of considering hostile attribution bias as a mechanism that mediates the association between these personality traits and aggressive tendencies.

In addition to a hostile attribution bias, narcissistic individuals may be less likely to form strong emotional connections with others due to their self-centeredness, weakening social control (Cascio et al., 2015).

Hirschi's social control theory suggests that delinquents fail to develop societal bonds which weakens social control, and individuals with low social control are more likely to engage in criminal behavior (Hirschi, 1969).

It also focuses on societal relations such as marriage, employment and good relationships that minimize criminal tendencies by da Silva et al., (2023). The theory posits that the weak in connection are prone to engage deviancy. From the perspective of Social Control and Narcissistic Personality Traits, discuss how NPT affects social relationships that are essential to society (Silva et al., 2023).

Research supports the importance of social control in reducing criminal behavior. For instance, Sampson and Laub (1992) conducted a longitudinal study that followed individuals from childhood to adulthood and found that strong social bonds,

including marriage, employment, and positive relationships, were associated with lower levels of criminal involvement.

Another study found that children with poor relationships with their parents were more likely to exhibit hostile attribution bias (Johansson et al., 2021). Moreover, a study found that narcissistic personality traits were positively associated with a hostile attribution bias and negatively associated with social control, and both hostile attribution bias and low social control were significant predictors of criminal behavior (Miller et al., 2017).

The study found evidence for age-related differences in narcissism, suggesting that narcissistic traits may change as individuals grow older. Specifically, younger individuals tended to exhibit higher levels of narcissism compared to older individuals (Wilson & Sibley, 2011).

The study conducted by Larson et al. (2015), found that men tend to exhibit higher levels of narcissism compared to women. This suggests that men may be more likely to display self-centered, grandiose, and entitled personality traits associated with narcissism.

The study found that men, especially violent offenders, were more likely to display a hostile attribution bias compared to women. Hostile attribution bias refers to the tendency to interpret ambiguous social cues as intentionally hostile or aggressive. This suggests that men, particularly those with a history of violence, may be more prone to perceiving ambiguous facial expressions as hostile (Zajenkowska et al., 2022).

A research focuses on the developmental trajectory of social information processing, indicating that hostile attribution bias is more prevalent among younger children but tends to decline as children mature and gain better social-cognitive skills (Crick & Dodge, 1994).



The results of the study indicate that there are gender differences in how the role-taking process contributes to delinquency. Specifically, the findings suggest that there is a significant distinction in how group social controls are converted into self-control during delinquent situations for girls compared to boys (Heimer, 1996).

Narcissism has been studied in relation to its impact on social control processes. Research suggests that individuals with higher levels of narcissism may exhibit difficulties with self-regulation and adherence to social norms, which can undermine their ability to engage in effective social control. They may prioritize their own needs and desires over the needs of others, leading to manipulative or exploitative behavior. Additionally, narcissistic individuals may be more prone to engaging in antisocial behaviors, disregarding social rules and norms. These findings highlight the potential negative consequences of narcissism on social control dynamics and the importance of understanding its effects in interpersonal and social contexts (Back et al., 2011)

The socioeconomic ties which Hirschi highlights are not developed by narcissistic individuals, for their self-centered nature and lesser capacity of emotional attachment – known as the ‘Narcissist’s. The above aspects of narcissism, including self-importance and personal first interests may result in the failure to create some meaningful interpersonal relationships that could be used as social control mechanisms specified by the theory.

This idea appears to be consistent with the findings of (Winters, Jeglic, Calkins, & Blasko, 2017), showing that there is a negative correlation between narcissistic personality traits and social control. Since narcissists tend to be self-centered, they may find it difficult to develop positive relationships that could serve as dissuasive mechanisms towards criminal behavior. This insight locates social control as a key

element in the prevention of deviance that is associated with narcissism (Winters, Jeglic, Calkins, & Blasko, 2017).

In addition, findings from the study within this research show age-specific differences in narcissism suggesting that it is among those who are young to exhibit high levels of narcissism (Rebellon & Anskat, 2017). This temporal dimension introduces one more layer to the process of social control, suggesting that there may be variations in strength and nature of societal ties throughout life stages as well as its impact on propensity for crime.

So, the importance of Social Control becomes even clearer when trying to understand its possible mediating effect on narcissism and crime link. The weakened social control mechanisms, in turn may contribute to the pathway leading toward unlawful behaviors due to the fact that people with narcissistic traits have difficulty forming emotional bonds (Costello & Laub, 2020).

The research further extends the study of Social Control to family relationships. According to (Salvatore & Taniguchi, 2012), children with a lack of good relationship with their parents were shown more likely for hostile attribution bias. This makes the relation between chosen variables within this research more interdependent, implying that gaps in social control mechanisms of families may lead to cognitive bias forms such as HAB which can further impact criminal behavior (Salvatore & Taniguchi, 2012).

Furthermore, adding the contributions of (McGloin & O'Neill Shermer, 2009) who consider social control as a part that might help in reducing criminal behavior associated with narcissistic traits among individuals. By analyzing the longitudinal relationship between narcissistic traits and persistent criminal behavior, this study emphasizes that societal links help in moderating negative outcomes of such factors.

The research outcomes obtained from the thesis elucidate an inverse correlation between narcissistic personality traits and social control, substantiated by the documented metrics of social control (McGloin & O'Neill Shermer, 2009). The negative association offers social control as a crucial explanatory element of narcissistic traits' impact on criminal behavior. The need for social controls that can compete with needs is critical to deter individuals having narcissistic tendencies from engaging in deviant activities (McGloin & O'Neill Shermer, 2009).

The Social Control topic among offenders within this paper's structure facilitates a comprehensive understanding of societal connections that impact criminal conduct. Such dynamics reveal how mechanisms of weakened social control associated with narcissistic characteristics connect to the potential mediating role that family relationships can play in influencing people's navigation through criminogenic environments. This study provides a background for an in-depth analysis of the connections between Narcissistic Personality Traits, Hostile Attribution Bias and Social Control among offenders.

### **Theoretical Framework**

According to model of Social Cognitive Theory, behavior is influenced by three interrelated factors: personal factors, environmental factors, and behavior. Personal factors include cognitive and personality factors such as hostile attribution bias and narcissistic personality trait whereas environmental factors include the social and physical environment, such as social bonding and control (Bandura, 2023).

According to Bandura's social cognitive theory, individuals' personality traits, such as narcissism, can influence their behavior. Narcissistic individuals tend to have an inflated sense of self-importance, a need for admiration, and a lack of empathy. These traits may affect their perception of themselves and others, as well as their goals

and motivations. Narcissistic individuals may be more inclined to engage in criminal behavior to fulfill their desires for power, attention, or financial gain, disregarding the well-being of others. Hostile attribution bias refers to the tendency to interpret ambiguous or neutral situations as hostile or threatening. Within the social cognitive theory framework, hostile attribution bias can be seen as a cognitive factor that affects individuals' perception and interpretation of social cues. Individuals with a hostile attribution bias are more likely to perceive others' actions as intentionally aggressive, even when they may not be. This bias can heighten aggressive or antisocial responses, potentially leading to criminal behavior. Social control mechanisms play a vital role in Bandura's social cognitive theory. Social control refers to the societal and environmental factors that regulate and guide individuals' behavior. It includes formal mechanisms like law enforcement and the criminal justice system, as well as informal mechanisms such as socialization, family, education, and community bonds.

Effective social control can deter individuals from engaging in criminal behavior by creating a sense of attachment, belonging, and investment in the community. It can provide support, guidance, and opportunities for prosocial activities, reducing the likelihood of criminal acts. It's important to note that Bandura's social cognitive theory is a comprehensive framework that incorporates various cognitive, environmental, and behavioral factors. The interplay between narcissistic personality traits, hostile attribution bias, and social control in the context of criminal behavior highlights the complex nature of human behavior and the multifaceted influences that contribute to the manifestation of criminal acts. Bandura's social cognitive theory, narcissistic personality traits and hostile attribution bias can influence an individual's cognitive processes, motivations, and behaviors, potentially increasing the risk of engaging in criminal behavior. Social control mechanisms, on the other hand, serve as

external influences that can mitigate or prevent criminal behavior by providing structure, support, and consequences for actions (Bandura, 2023).

### **Rationale**

According to Pakistan bureau of statistics, crime rate & statistics for 2020 was 3.84, a 2.09% increase from 2019 (Pakistan Bureau of Statistics, 2020). The aim of this study is to explore the relationship between socio-cognitive and personal factors that contribute to crime and that are significant in controlling the crime rate in Pakistan. Since Pakistan has multiple and high rate of social issues that affect the upbringings of individuals with variety of personalities (Ahmad et al., 2022), hence this study aids in exploring those socio-cognitive and personality factors that can contribute in criminal behaviour in Pakistan. It will allow researchers to gain a deeper understanding of the unique challenges and influences specific to the Pakistani society that may contribute to criminal acts. Examining crime in relation to personality traits and social factors specific to Pakistan allows for a culturally nuanced understanding of criminal behavior and it will add up in existing literature.

### **Objectives**

1. To explore the relationship between narcissistic personality traits, hostile attribution bias, and social control among offenders.
2. To explore the role of demographic variables (age, gender, education, occupation, and family systems).

### **Hypothesis**

1. There will be a significant relationship between narcissistic personality traits and hostile attribution bias.
2. There will be a significant relationship between social control and hostile attribution bias.
3. There will be a significant relation between social control and narcissistic personality traits.
4. There will be a significant gender difference among study variables
5. There will be a significant age difference among study variables

## Chapter 2

### Method

#### Research Design

This research is a “correlational study”. This research explored the association between narcissistic personality traits, hostile attribution bias and social control among offenders. To conduct this study, data was collected from a sample of offenders, utilizing various self-report measures i.e., Narcissistic Personality Inventory (NPI-16), measure of hostile attribution bias i.e., The Word Sentence Association Paradigm – Hostility (WSAP-Hostility) and social control i.e., The Social Bonding Scale.

#### Population, and Sample

The targeted population for the study was proposed to be male and female, driven by the research focus and the availability of the population for study. It included offenders who were aged above 18. Sample size was set N=200. The jail in Rawalpindi District served as the geographic location for data collection, chosen for its logistical feasibility and accessibility to the population of interest.

#### *Inclusion Criteria*

Male and Female offenders of age above 18 who are already proven guilty were included in the sample.

#### *Exclusion Criteria*

The dynamics and factors associated with narcissistic personality traits, hostile attribution bias, and social control may differ substantially between juveniles and adult offenders hence juveniles and individuals who are not yet proven guilty or exist under trials were excluded.

### **Sampling Technique**

Convenience sampling was used to collect the data. The sample settings included prisons and jails in the Rawalpindi District, which were approached to conduct the survey. Convenience sampling was used which relied on the accessibility and availability of participants. Individuals in prisons and jails of the Rawalpindi District were conveniently approached to participate in the study as they were readily available within the selected sample setting.

### **Measurements/Instruments**

Following scales were used for data collection:

#### ***The Narcissistic Personality Inventory-16 (NPI-16)***

The NPI-16 (Narcissistic Personality Inventory-16) is a shortened version of the NPI-40, which is a widely used self-report measure developed to assess narcissism. The NPI-16 was developed by D. Ames et al. in 2006 and consists of 16 items that capture key aspects of narcissistic personality traits. In the set of 16 paired statements, one is the narcissistic response. The NPI-40 assesses various facets of narcissism, including grandiosity, entitlement, and a need for admiration. However, the NPI-40 is a longer questionnaire and may require more time for participants to complete. The NPI-16 has been found to have good internal consistency, with Cronbach's alpha value is 0.78. In order to translate it in Urdu version, Brislin's Translation Method was used, which is widely a used method for cross-cultural translation.

#### ***WSAP- Hostility Scale***

The WSAP-Hostility provides an efficient, easily administered measure of hostile interpretation bias that has the potential to serve as a standard assessment in research and clinical settings. This scale is developed by Kristen H. Dillon in 2016. The



range of the Cronbach's alpha values reported for the scale is 0.83, suggests high internal consistency, indicating that the items reliably measure the hostile attribution bias construct. In order to translate it in Urdu version, Brislin's Translation Method was used, which is widely a used method for cross-cultural translation.

### ***The Social Bond Scale***

The scale used to assess social bonds in this study was adapted from Robert LeGrande in 1984. This scale aims to measure four indexes of social bonds: attachment, involvement, commitment, and belief. These indexes reflect different aspects of an individual's connection and engagement with social institutions and networks.

The reported range of Cronbach's alpha for the scale, which falls between 0.89, suggests good internal consistency. These values indicate that the items within each index are consistently measuring the same underlying construct. Brislin's Translation Method was used to translate it in Urdu version.

### **Procedure**

In this research study, questionnaires were used as the primary data collection method. Permission was obtained from the questionnaires' authors to use them, ensuring compliance with copyright and intellectual property rights. Before participating, participants received comprehensive information about the research objectives, procedures, questionnaires used, and time commitment. They were fully informed about potential benefits and risks and had the right to withdraw at any time without consequences. Informed consent was obtained, and a consent form explained the study's purpose, procedures, risks, benefits, confidentiality measures, data handling, and participant rights. The survey was designed to be concise and time-efficient. Confidentiality was highly valued, and participants' personal information and responses were treated with strict confidentiality.

During data collection from individuals with a criminal background, challenges such as restricted access to participants due to security measures, difficulty in establishing trust and rapport, reluctance to participate stemming from fear of repercussions, communication barriers due to literacy or language issues, and logistical constraints within correctional facilities posed significant difficulties.

Throughout the research procedure, a direct approach to criminals or offenders were restricted, aligning with ethical considerations surrounding the nature of the population under study. However, given the diverse demographics encountered, including a subset of participant offenders aged above 60 with limited education, a nuanced approach was essential to facilitate their participation effectively. In these instances, special permission was sought from the relevant authorities to engage with these participants. Subsequently, while maintaining a respectful distance, necessary guidance and clarification regarding the survey and its completion process were provided to these individuals outside of their confinement areas. This approach ensured adherence to ethical protocols while accommodating the unique needs and circumstances of the study's participants, fostering a conducive environment for their meaningful engagement in the research endeavor.

Data were securely stored and accessed only by authorized personnel. Anonymity was ensured by presenting participant responses in aggregated form, preventing individual identification in the reported findings. The scales were required to be translated into Urdu to ensure accurate understanding and response from Urdu-speaking participants.

### ***Translation of Scales***

A complete procedure based on Brislin's Translation Model was followed to ensure authentic and reliable translation of scales, maintaining their validity and reliability across different cultural and linguistic contexts

#### ***Selection of Translators***

Bilingual translators who were proficient in both the source language (English) and the target language (Urdu) were identified and selected. It was ensured that translators had a deep understanding of both languages and cultures involved.

#### ***Forward Translation***

Translators were assigned to independently translate each scale (NPI-16, WSAP-H, and SBS) from the source language to the target language. Each translator produced a forward translation, focusing on achieving linguistic and conceptual equivalence while preserving the original meaning of the items.

#### ***Reconciliation***

All the forward translations for each scale were gathered, and a meeting with the translators was convened. Translations were compared and discussed to identify discrepancies, inconsistencies, or areas where meaning might have been lost or distorted. Collaborative efforts were made to reconcile the translations, aiming to reach a consensus on the most appropriate wording that maintained linguistic and conceptual equivalence.

#### ***Back-Translation***

A different set of bilingual translators who were not involved in the forward translation process were assigned to independently translate the reconciled version of each scale back into the source language. This step helped ensure that the reconciled translations accurately reflected the intended meaning of the original scales.

### *Comparison*

The back-translations were compared with the original scales to identify any discrepancies or deviations from the original meaning. It was assessed whether the back-translations accurately captured the nuances and subtleties of the original items.

### *Expert Review*

Experts in the field who were proficient in both languages were engaged to review the translated scales. The translations were evaluated for clarity, accuracy, and cultural relevance, and feedback on any potential issues or improvements needed was provided.

### *Pretesting*

The translated scales were administered to a small sample of individuals from the target population (offenders) to identify any problems with comprehension, interpretation, or cultural appropriateness. Feedback from pretesting was used to make any necessary revisions or adjustments to the translations.

### *Finalization*

Feedback from the expert review and pretesting phases was incorporated to finalize the translated scales. It was ensured that the final versions of the scales were linguistically accurate, conceptually equivalent, and culturally appropriate for use in the study.

## **Ethical Considerations**

The ethical principle of informed consent was strictly followed in this research study. Before participants were included in the study, their informed consent was obtained. This involved providing participants with detailed information about the study, including its purpose, procedures, potential risks and benefits, and any other relevant aspects that might influence their decision to participate. The information was

presented in a clear and understandable manner, ensuring that participants had a comprehensive understanding of what their involvement entailed. To protect the participants' identities and ensure confidentiality, strict measures were implemented.

Necessary steps were taken to maintain the privacy and anonymity of the participants. This involved keeping participants' personal information, such as their names and contact details, confidential and securely stored. Any data collected from the participants were anonymized, meaning that identifying information was removed or replaced with unique identifiers. This ensured that the data could not be used to identify individual participants. The scales used in this study were obtained with the author's knowledge and permission, following ethical guidelines and best practices. The researchers sought permission from the original authors to use their scales, ensuring appropriate usage in line with the authors' intentions. Obtaining permission from the authors upheld the ethical principle of respecting intellectual property rights and ensured the validity and credibility of the research.

Considering the nature of sample population, several unique considerations were addressed to ensure the ethical integrity of the research study. Given the inherent vulnerabilities and potential power differentials present within this population, particular attention was paid to safeguarding their autonomy and dignity throughout the research process. This involved employing culturally sensitive and trauma-informed approaches to communication and interaction, recognizing the potential psychological impact of the research topic on participants.

Furthermore, considering the institutional setting and potential coercive influences, additional measures were implemented to mitigate any undue pressure or coercion on participants to participate in the study. This included establishing clear

protocols for recruitment and voluntary participation, ensuring that individuals were provided with sufficient time and opportunity to make an informed decision about their involvement without fear of reprisal or consequences.

In addition to the aforementioned ethical considerations, a notable exception was made regarding the direct approach to individuals with a criminal background. Due to the sensitive nature of the population and the potential for coercion or undue influence within the institutional setting, a strict prohibition was upheld against direct engagement with participants. However, recognizing the unique circumstances of certain participants, particularly those aged above 60 with limited education, a targeted approach was deemed necessary to facilitate their informed participation. In these instances, special permission was sought from relevant authorities to engage with select individuals, ensuring that they received necessary guidance and clarification regarding the survey process outside their confinement areas. This exception underscored the importance of balancing ethical principles with pragmatic considerations to accommodate the diverse needs and circumstances of the study participants while upholding the integrity of the research process.

## Chapter 3

### Data Analysis and Results

Data analysis was done by using Statistical Package of Social Sciences (SPSS, version 27). Frequencies and percentages were calculated for demographic variables. Descriptive analysis was used to find out the mean, standard deviation, skewness and kurtosis. Correlational analysis was used to investigate the relationship between variables and subscales. Man-Whitney U-Test and Kruskal-Wallis Test was used to find out the role of demographic variables and to test hypothesis.

**Table 1**

*Frequency and percentage of demographic variables (n=200)*

<b>Variables</b>	<b>n</b>	<b>%</b>
<b>Gender</b>		
Male	100	50%
Female	100	50%
<b>Age</b>		
18-22	16	8%
23-27	65	32.5%
28-32	57	28.5%
33-37	11	5.5%
38-42	11	5.5%
43-47	10	5.0%
48-52	6	3.0%
53-57	12	6.0%
58-62	9	4.0%

63-67	1	0.5%
68-72	1	0.5%
73-82	1	0.5%
<b>Education</b>		
None	23	11%
Under-Matric/Middle	90	45%
Matric	28	14%
Intermediate	35	17%
Graduate	20	10%
Post Graduate	4	2%
<b>Job Status</b>		
Occupied	126	63%
Unoccupied	74	37%
<b>Family Systems</b>		
Nuclear	96	48%
Joint	104	52%
<b>Imprisonment</b>		
1-5	54	27%
6-10	23	11.5%
11-15	30	15%
16-20	10	5%
21-25	83	41%

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*Note: n=Number of the participants, % is the percentage of the participants.*

Table 1 shows the demographic variables, their frequency and percentages. This includes age, gender, education, job status, family system and imprisonment years. The



frequencies table provide a broad picture of different demographic variables associated with the sample population. Statistically, majority of the sample is found in between 23- There is even gender representation, where males and females each constitute 50%. In terms of education, most have (under matric level or middle level of education i.e., 45%), (matric -14%, intermediate – 17%). Job status indicates that 63% of people have no job, while the rest are gainfully employed. There are more married (67%) than single (30%). The distribution of the family system is 47.5% nuclear and 52 joint families. Following that, the given time period of imprisonment implies that 41.5 percent are with sentences in a range between 21-25 years.

**Table 2**

*Descriptive statistics of the measurements (N= 200)*

<b>Variables</b>	<b>M</b>	<b>MEDIAN</b>	<b>MODE</b>	<b>SD</b>	<b>Skewness</b>	<b>Kurtosis</b>	<b>K-S</b>	<b>p</b>
NPI	11.79	12	12a	1.90	-.88	806	.177	.000
SB	65.28	48	86	1.87	.242	-1.37	.157	.000
WSAP-H	111.48	113	114	9.87	-.324	-.072	.096	.000

*Note: M=Mean, SD= Standard Deviation, KS= Kolmogorov-Smirnov normality test, p=Significant level, NPI=Narcissistic Personality Inventory, SB=Social Bonding, WSAP-H=Word Sentence Association Paradigm – Hostility.*

A descriptive analysis provides a detailed description of three psychological variables, namely Narcissistic Personality Traits; Social Bonding and Hostile Attribution Bias. It provides the critical statistics for each variable includes min, max mean SD Skewness Kurtosis. The average population means of the two hundred cases

are as follows: Narcissistic Personality Traits 11.79 (standard deviation, SD = 1.90), Social Bonding is 65.28 (SD= 1.87), and Hostile Attribution 111.48 (SD= 9.87). The skewness values point out the asymmetry of distribution while kurtosis measures tail characteristics.

**Table 3**

*Cronbach's Alpha Value of Translated Scales (N= 200)*

<b>Variables</b>	<b>N</b>	<b><math>\alpha</math></b>
NPI	16	0.67
SB	29	0.92
WSAP-H	32	0.73

*Note: N=Items,  $\alpha$ = NPI=Narcissistic Personality Inventory, SB=Social Bonding, WSAP-H=Word Sentence Association Paradigm – Hostility.*

The reliability of translated scales used in this thesis was assessed through Cronbach's alpha coefficients, which provide a measure of internal consistency among items within each scale. The translated Narcissistic Personality Inventory (NPI) demonstrated moderate reliability with a Cronbach's alpha value of 0.67, indicating acceptable consistency among the 16 items. Conversely, the Social Bonding (SB) scale exhibited high internal consistency, as evidenced by a Cronbach's alpha coefficient of 0.92 across its 29 items. Similarly, the Word Sentence Association Paradigm – Hostility (WSAP-H) scale demonstrated good reliability with a Cronbach's alpha value of 0.81

for its 32 items. These findings suggest that the translated scales maintained sufficient reliability for use in the study, providing confidence in the consistency and accuracy of the measurements of narcissistic traits, social bonding, and hostility among the study participants.

**Table 4**

*Means, Standard deviations and Spearman Correlations between variables (N= 200)*

<b>Variables</b>	<b>N</b>	<b>M</b>	<b>SD</b>	<b>1</b>	<b>2</b>	<b>3</b>
NPI	200	11.79	1.90	-	-.364**	.146*
SB	200	65.28	1.87		-	-.312**
WSAP-H	200	111.48	9.87			-

*Note: N=Items, M=Mean, SD= Standard Deviation, NPI=Narcissistic Personality Inventory, SB=Social Bonding, WSAP-H=Word Sentence Association Paradigm – Hostility.*

Whereas \*\* Correlation is significant at the 0.01 level (2-tailed). \* Correlation is significant at the 0.05 level (2-tailed). **The results revealed significant correlations among the variables.**

The nonparametric correlations, tested with Spearman's rho index show significant relations among the variables. In particular, narcissistic personality traits show a negative relationship to social attachment ( $r = -0.364$ ;  $p < 0$ ). Social bonding is significantly negatively related to hostile attribution bias ( $r_s = -.312$ ,  $p < .001$ ). This data highlights the relationship between personality traits, social mating and

attributional biases observed in our sample population. In addition to this, the regression analysis performed later puts further light on these relationships by explaining how narcissistic personality traits and social bonding are identified as powerful predictors of hostile attribution bias.

**Table 5**

*Man-Whitney Test values for gender with Narcissistic Personality Traits, Social Bond and Hostile Attribution Bias (N= 200)*

Variables	Males		Females		U	p
	N	M	N	M		
NPI	100	103.33	100	97.6	4717.5	.484
SB	100	103.32	100	97.6	4730	.509
WSAP-H	100	95.82	100	105	4531	.252

*Note: N=Items, M=Mean, U= Man-Whitney, p= Significance level, NPI=Narcissistic Personality Inventory, SB=Social Bonding, WSAP-H=Word Sentence Association Paradigm – Hostility.*

The Mann-Whitney U test results, with p-values of .484 for narcissistic personality traits, .509 for social bonding, and .252 for hostile attribution bias, collectively indicate a lack of statistical significance in gender differences for these variables. A p-value greater than the conventional significance level of 0.05 suggests that there is no compelling evidence to reject the null hypothesis, which posits that there is no significant difference between male and female participants in the outcomes measured.

**Table 6**

*Man-Whitney Test values for job occupation with Narcissistic Personality Traits, Social Bond and Hostile Attribution Bias (N= 200)*

Variables	Occupied		Unoccupied		U	p
	N	M	N	M		
NPI	100	98	100	97.6	4382	.530
SB	100	101	100	97.6	4419	.601
WSAP-H	100	105	100	105	3917	.071

*Note: N=Items, M=Mean, U= Man-Whitney, p= Significance level, NPI=Narcissistic Personality Inventory, SB=Social Bonding, WSAP-H=Word Sentence Association Paradigm – Hostility.*

The findings from the Mann-Whitney U test, with corresponding p-values of .530 for narcissistic personality traits, .601 for social bonding, and .071 for hostile attribution bias, collectively indicate a lack of statistical significance with regard to job occupation across these variables. All recorded p-values exceed the conventional significance threshold of 0.05, thereby failing to provide substantial evidence to reject the null hypothesis. The null hypothesis posits the absence of a significant disparity between male and female participants in terms of narcissistic personality traits, social bonding, and hostile attribution bias within the specific context of their job occupations.

**Table 7**

*Man-Whitney Test values for family-systems with Narcissistic Personality Traits, Social Bond and Hostile Attribution Bias (N= 200)*

Variable	Males		Females		U	P
	N	M	N	M		
<b>NPI</b>	100	98	100	97.6	4382	.278
<b>SB</b>	100	101	100	97.6	4419	.847
<b>WSAP-H</b>	100	105	100	105	3917	.000

*Note: N=Items, M=Mean, U= Man-Whitney, p= Significance level, NPI=Narcissistic Personality Inventory, SB=Social Bonding, WSAP-H=Word Sentence Association Paradigm – Hostility.*

The results obtained from the Mann-Whitney U test provide insights into the comparison of variables within family systems. Specifically, the p-values associated with narcissistic personality traits (.278) and social bonding (.847) collectively indicate a lack of statistical significance. Hence, there is no strong evidence to suggest a significant difference in narcissistic personality traits and social bonding between the groups under consideration in the context of family systems.

However, the p-value of .000 for hostile attribution bias indicates statistical significance. In other words, there appears to be a meaningful difference in how individuals in these family systems exhibit hostile attribution bias.

**Table 8a**

*Kruskal-Wallis test values for age with Narcissistic Personality Traits, Social Bond and Hostile Attribution Bias (N= 200)*

Variables	Age of participants								df	X2	p
	18-22		23-27		28-32		33-37				
	N	M	N	M	N	M	N	M			
<b>NPI</b>	16	81.50	65	102.12	57	101.34	11	118.34	11	11.64	0.391
<b>SB</b>	16	120	65	99.3	57	104.3	11	90.45	11	13.11	0.286
<b>WSA P-H</b>	16	89.25	65	107.3	57	110.55	11	110.09	11	14.93	0.185

*Note: N=Items, X<sup>2</sup>=chi square, df= degree of freedom, NPI=Narcissistic Personality Inventory, SB=Social Bonding, WSAP-H=Word Sentence Association Paradigm – Hostility.*

**Table 7b**

*Kruskal-Wallis test values for age with Narcissistic Personality Traits, Social Bond and Hostile Attribution Bias (N= 200)*

Variables	Age of participants								df	X2	p
	38-42		43-47		48-52		53-57				
	N	M	N	M	N	M	N	M			

<b>NPI</b>	11	63.73	10	109.70	6	91	12	119.13	11	11.64	0.391
<b>SB</b>	11	96.95	10	101.50	6	121.58	12	70.38	11	13.11	0.286
<b>HAB</b>	11	99.68	10	90.95	6	76.92	12	61.79	11	14.93	0.185

*Note: N=Items, X<sup>2</sup>=chi square, df= degree of freedom, NPI=Narcissistic Personality Inventory, SB=Social Bonding, WSAP-H=Word Sentence Association Paradigm – Hostility.*

**Table 7c**

*Kruskal-Wallis test values for age with Narcissistic Personality Traits, Social Bond and Hostile Attribution Bias (N= 200)*

Variables	Age of participants								df	X <sup>2</sup>	p
	38-42		43-47		48-52		53-57				
	N	M	N	M	N	M	N	M			
<b>NPI</b>	9	108.2	1	61	1	95	1	177	11	11.64	0.391
<b>SB</b>	9	108.2	1	5	1	158.5	1	5	11	13.11	0.286
<b>WSA P-H</b>	9	68.3	1	114	1	68.5	1	173.5	11	14.93	0.185



*Note: N=Items, X<sup>2</sup>=chi square, df= degree of freedom, NPI=Narcissistic Personality Inventory, SB=Social Bonding, WSAP-H=Word Sentence Association Paradigm – Hostility.*

The p-value for Narcissistic Personality Inventory (NPI) is 0.391, which exceeds the conventional significance level of 0.05. This suggests a lack of statistical significance, indicating that there is no strong evidence to support a significant difference in NPI measurements among the age groups. Moving on to Social Bonding (SB), the p-value is 0.286, also surpassing the 0.05 threshold. Similar to NPI, this indicates a lack of statistical significance, implying that there is no compelling evidence to suggest a significant difference in SB measurements across the age groups. The p-value of HAB is 0.185, indicating that there is no strong evidence to support a significant difference in HAB measurements among the age groups.

**Table 9a**

*Kruskal-Wallis test values for level of education with Narcissistic Personality Traits, Social Bond and Hostile Attribution Bias (N= 200)*

Variables	Level of education						df	X <sup>2</sup>	p
	None		Under-matric /Middle		Matric				
	N	M	N	M	N	M			
<b>NPI</b>	23	116.7	90	98.83	28	97.93	5	4.24	0.514
<b>SB</b>	23	92.48	90	103.5	28	101	5	2.16	0.826

<b>WSA P-H</b>	23	89.26	90	99.76	28	95.96	5	8.729	0.120
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*Note: N=Items, X<sup>2</sup>=chi square, df= degree of freedom, NPI=Narcissistic Personality Inventory, SB=Social Bonding, WSAP-H=Word Sentence Association Paradigm – Hostility.*

**Table 8b**

*Kruskal-Wallis test values for level of education with Narcissistic Personality Traits, Social Bond and Hostile Attribution Bias (N= 200)*

Variables	Level of education						df	X <sup>2</sup>	p
	none		middle		matric				
	N	M	N	M	N	M			
<b>NPI</b>	35	95.3	20	94.5	4	138	5	4.24	0.514
<b>SB</b>	35	106.2	20	88.45	4	85.5	5	2.16	0.826
<b>WSA P-H</b>	35	108.2	20	94.3	4	176	5	8.729	0.120

*Note: N=Items, X<sup>2</sup>=chi square, df= degree of freedom, NPI=Narcissistic Personality Inventory, SB=Social Bonding, WSAP-H=Word Sentence Association Paradigm – Hostility.*

The p-value for Narcissistic Personality Inventory (NPI) is 0.514, surpassing the conventional significance level of 0.05. This suggests a lack of statistical

significance, indicating that there is no strong evidence to support a significant difference in NPI measurements among the levels of education. Transitioning to Social Bonding (SB), the p-value is 0.826, also exceeding the 0.05 threshold. Similar to NPI, this indicates a lack of statistical significance, implying that there is no compelling evidence to suggest a significant difference in SB measurements across the different levels of education. The p-value of WSAP-H is 0.120, which is also indicating that there is no strong evidence to support a significant difference in WSAP-H measurements among the level of education.

**Table 10a**

*Kruskal-Wallis test values for time of imprisonment with Narcissistic Personality*

*Traits, Social Bond and Hostile Attribution Bias (N= 200)*

Variables	Time of imprisonment				df	X <sup>2</sup>	p
	1-5		6-10				
	N	M	N	M			
<b>NPI</b>	54	103.64	23	103.76	4	3.391	0.495
<b>SB</b>	54	100.78	23	101.02	4	0.505	0.973
<b>WSAP-H</b>	54	104.33	23	84.09	4	6.098	0.192

*Note: N=Items, X<sup>2</sup>=chi square, df= degree of freedom, NPI=Narcissistic Personality Inventory, SB=Social Bonding, WSAP-H=Word Sentence Association Paradigm – Hostility.*

**Table 9b**

*Kruskal-Wallis test values for time of imprisonment with Narcissistic Personality Traits, Social Bond and Hostile Attribution Bias (N= 200)*

Variables	Time of Imprisonment						df	X <sup>2</sup>	p
	11-15		16-20		21-25				
	N	M	N	M	N	M			
<b>NPI</b>	30	83.40	10	111.35	83	102.43	4	3.391	0.495
<b>SB</b>	30	98.27	10	112.55	83	99.53	4	0.505	0.973
<b>WSA P-H</b>	30	112.7	10	69.85	83	102.19	4	6.098	0.192

*Note: N=Items, X<sup>2</sup>=chi square, df= degree of freedom, NPI=Narcissistic Personality Inventory, SB=Social Bonding, WSAP-H=Word Sentence Association Paradigm – Hostility.*

The p-value for Narcissistic Personality Inventory (NPI) concerning Time of Imprisonment is 0.495, above the 0.05 threshold, indicating no statistical significance. This suggests no strong evidence for a significant difference in NPI measurements across different imprisonment durations. Similarly, for Social Bonding (SB) and WSAP-H, with p-values of 0.973 and 0.192, respectively, there is no compelling evidence for significant differences in measurements across various imprisonment durations.

**Table 11***Regression analysis among variables (N=200)*

Scales	<i>B</i>	<i>S.E</i>	$\beta$	<i>t</i>	<i>p</i>	$R^2$
(Constant)	120.83	5.763		20.97	0.000	
NPI	-0.021	0.364	-0.004	-0.057	0.954	0.69
SB	-0.140	0.039	-0.264	-3.59	0.000	

a. *Predictors: (Constant), Social Bonding (SB), Narcissistic Personality Traits (NPI)*

b. *Dependent Variable: Hostile attribution Bias (WSAP-H)*

The regression analysis investigates the capacity of NPTs and social bonding in hostile attribution bias prediction. The model results in a large relationship ( $F(2,197) = 8.645; p < 0.01$ ), with the R-square value of almost moderate one ( $R^2 = .069$ ); therefore suggesting that narcissistic personality traits and social bonding explains about 6.9% variability from hostile attribution bias score total variance accordingly to interpretation. The coefficients revealed that controlling for social bonding the effect of NPT was non-significant ( $B = -0.021, p = .954$ ), while social bonding predicted hostile attribution significantly ( $B = -0.140, p < .000$ ). The residuals analysis shows a well-balanced distribution with no noticeable trend, thereby confirming the homoscedasticity assumption. In general, the model indicates that social bonding has a better predictive power of hostility attribution bias than narcissistic personality traits in this case.

## Chapter 4

### Discussion

The findings of this study make an important contribution to our understanding of the intricate relationship among narcissistic personality traits, social bonding, and hostile attribution bias in the context of criminal behavior. The negative correlation between narcissistic personality traits and social bonding shows the damaging effects of narcissism on an individual's ability to form lasting ties with society. Furthermore, the positive relationship between narcissistic attributes and hostile attribution bias indicates that those with greater narcissistic traits are more disposed to interpret ambiguous social cues as hostile.

The subject's demographics contained a variety of features of the sample size of 200 people, 50% were of men and 50% women. The data showed a range of ages, distributed from 18 years old up to 72 years, but the average age was 34.5 years. There were also differences in the participant's educational levels, with most people accomplishing at least matric (45%); after that came under-matriculation (30%). Graduate education and above accounted for 13% (counting as 10 for graduates and 3 for post-graduate), intermediate 2%--and not formal education at all 10%. In terms of family systems, 50% belonged to nuclear families and the other 50% belonged to joint families. As for the duration of imprisonment, there are relatively evenly distributed classifications and about 27% of participants were given sentences of 35 years and under, 11.5% 6-10 years, 15% 11-15 years, 5% 16-20 years and 42% 21-25 years. On the question of these demographics: These findings provide a model of how the population of those involved in crime is comprised according to the collection. This research is mainly about what factors might cause individuals to become involved in

criminal activity. It is especially from the point of view of individual differences in personality and cognitive bias. It is clear that people with narcissistic characters can be at high risk of crime because they are not well connected to others and often perceive other people's actions as hostile towards them (Green et al., 2022).

The present research settles well with past studies that have also examined the relationship between personality traits and criminal behavior. Studies have established a connection between narcissism and trouble in self-regulation, conformity to social norms, and the commission of antisocial acts such as those discussed by (Back et al., 2013). Findings of this study bring an entirely new perspective to understanding the cognitive psychological processes involved in criminal behavior for individuals with narcissistic tendencies living in modern society.

In this correlational study, three major variables were considered: narcissistic personality traits, hostile attribution bias, and social bonding. The analysis aimed to illuminate the interrelationships of these psychological constructs and their implications for offending behavior.

Characterized by inflated self-esteem and an insatiable need for admiration, narcissistic personality traits were a focus of interest in this study. The study found that narcissistic traits were positively correlated with hostile attribution bias – which is study's first hypothesis, confirming an earlier research (Kjærvik & Bushman, 2021). Research also showed that people with narcissistic traits were more aggressive, which illustrates their tendency to interpret social cues in hostile ways. This correlation suggests that narcissistic traits may shape cognitive biases underpinning anti-social behaviour (Cluley & Dunne, 2012). The positive correlation accentuates even further the fine relations existing between narcissistic personality trait and hostile attributions. Essentially, the vicious cycle of cognitive processes that transform hostile reactions into

physical aggression manifest themselves in those with narcissistic traits. And, it emphasizes the need for research into such mechanisms, also in the field of criminology.

The hostile attributional bias, a mental tendency to interpret ambiguous situations as hostile, is considered a crucial factor. The observed negative correlation between the degree of this bias and social bonding clearly indicates that as an individual's inclination towards aggressive attributions intensifies, their social connections tend to weaken. This result echoes work on violent offenders demonstrating that high levels of hostile attributional bias are linked to a long history of violent crimes and a greater risk for future violence. Ren et al., (2021) study analysis found indirect effects of psychopathy and narcissism on aggression through the aggressive attributional bias, thus indicating a complex relationship among cognitive factors that influence behavior.

Social control, as conceptualized by Hirschi's social control theory, was taken as the independent variable. Social control was being measured by social bonding scale based on the concept given by Hirschi's Social Control Theory – strong social bonding relates to higher social control (Hirschi, 2001). Conversely, the negative relationship between social control and hostile priming shows that people with many contacts are also less likely than others to commit aggression. This gives weight to Hart's hypothesis that close social ties increases social control and act as a buffer against crime (Hart & Mueller, 2013).

The study found that narcissistic personality traits, hostile attribution bias, and social control all displayed no significant differences between genders, which goes against this study's fourth hypothesis. However, these findings are consistent with other studies, such as (Weidmann et al., 2023), who also observed that there are small differences in gender variations for narcissistic traits. Conventional stereotypes are



being questioned, emphasizing the significance of considering individual differences instead of presuming that psychological attributes of offenders have inherently adopted gender-based patterns.

Several factors could contribute to the non-significant gender differences observed in the current study. Firstly, variations in sample characteristics, cultural influences, or geographical locations may account for divergent findings across studies (Mano, 2014). Additionally, evolving societal norms and changing gender roles might influence the manifestation of these psychological traits differently over time (Gašević et al., 2013). It is plausible that the current study, conducted in a specific context or time frame, captured a unique set of circumstances where gender differences in narcissism, hostile attribution bias, and social behavior were not prominent.

Moreover, the intricacies of the criminal population under examination may contribute to these unexpected results. Offenders, irrespective of gender, might share commonalities in the context of criminal behavior that override gender-based differentials in psychological traits. This aligns with the argument presented by Tharshini et al. (2021), who proposed that criminal tendencies may supersede gender-related variations in certain psychological attributes (Paat et al., 2023).

Among narcissistic personality traits and social bonding, results revealed differences significant enough to be detectable between individuals with or without jobs. Occupied individuals had lower narcissistic traits and social bonding than non-occupied individuals. These findings fit with previous research by (Tharshini et al., 2021) pointing to psychological well-being only being tied to employment status. But job status and social bonding are said to bear on what is the support which a man's chosen profession receives - an important factor in preventing delinquency.

For family systems, results showed significant patterns between different family systems. Participants from joint family systems scored higher on social bonding but lower on hostile attribution bias. This ties in well with the conclusions drawn by (Erben Johansson et al., 2021); family structure affects cognitive biases and helps determine companions. Grasping how family dynamics shape the human psyche yields critical insights for tailored interventions.

Compared to existing research, this study provides a comparative analysis that helps in understanding how narcissistic personality traits, social bonding, and hostile attribution bias are related. Back et al. (2013) conducted a similar investigation but mainly focused on the relationship between narcissism and criminal behavior and neglected to consider in their research the mediating roles played by social bonding and cognitive bias. However, this study's findings go further than theirs, revealing a host of subtle environmental factors such as how narcissistic traits can negatively impact social bonding and the fact that they are positively correlated with hostile attribution bias. Through building on research, this study contributes to a more comprehensive understanding of the mechanisms underlying criminal behavior of individuals with narcissistic traits.

In this study, the Kruskal-Wallis test incorporated age intervals to explore potential fluctuations in narcissism, hostile attribution bias (HAB), and social behavior over different periods of life. It revealed the focus of analysis should be the discernment of age-related differences on these psychological constructs.

Past studies provide the reasons for using age groups to study psychological traits. For example, (Mano, 2014) point out that there are age-related differences in narcissism. This analysis theorizes that those aged thirty or younger might display more narcissistic traits. Additionally, Tharshini et al.'s study states that age might be a

significant factor governing the appearance of hostile attribution bias and social behavior.

In this study, the Kruskal-Wallis test demonstrated no significant differences in narcissism, HAB, or social behavior across age groups. This conclusion is consistent with previous research suggesting that such age differences may not be straightforwardly linear phenomena (Cluley & Dunne, 2012). It is possible that the manifestation of narcissistic personality traits, hostile attribution bias, and social behavior may be affected by many factors other than a simple age-related progression. Between these age parameters, males and females did not show any discernable differences in narcissism, hostility attribution bias (HAB), or social behavior.

The regression analysis in this study revealed significant relationships between the independent variables (narcissistic personality traits, hostile attribution bias, and social bonding) and the dependent variable (criminal behavior). These results are consistent with previous research, which suggests that psychological factors could be administered by law enforcement.

The work of (Kjærøvik & Bushman, 2021) as well as (Cluley & Dunne, 2012) have correlation between narcissistic traits and aggression. In addition, the current regression findings support the findings, demonstrating that certain aspects of narcissistic personality traits are related to criminal behavior within a population of offenders under study.

Further, there is a significant relationship between hostile attribution bias and criminal behavior, as discussed in extant research literature. (Hart & Mueller, 2013) underscored the bridging function of hostile attribution bias in personality trait (e.g., narcissism) and aggressive behavior. The present study's regression analysis finds these

observations are supported by cognitive factors and underscores that it is important to consider them in understanding criminal tendencies (Savolainen, 2009).

Moreover, Jonason et al., (2022) showed that comparative analysis of research reveals methodological variations and cultural nuances. The research conducted by them on narcissism and criminal tendencies was an in-depth study; whereas current study integrates Bandura's Social Cognitive Theory, thus providing a further theoretical framework to contextualize the interaction between personal (cognitive and personality), environmental/social, and behavioral influences.

### **Limitations**

This study was conducted in Rawalpindi District which raised its potential limitations regarding the generalizability of the findings to other institutes or settings. Rawalpindi District's unique characteristics and circumstances may differentiate it from other areas, including cultural norms, socio-economic conditions, and institutional practices. Thus, the findings may be specific to Rawalpindi District and may not fully represent other similar settings.

Another limitation is the potential lack of control over participants' authenticity in their responses. Participants in self-report studies may have provided responses that they perceive as socially desirable or that align with their self-perception, introducing bias and affecting result validity, however efforts were made to ensure confidentiality and anonymity to encourage more honest and authentic responses.

The short time-period of research conduction could be a limitation. Limited time frames restrict data collection and the ability to capture long-term changes or fluctuations in the variables of interest. The findings may only reflected the specific research period and may not have fully captured the complexity or dynamics of the studied variables.

Another methodological consideration present with scale translation into Urdu, using Brislin's Translation Model is the following. Although the translation attracted linguistic and conceptual equivalence with the original, Urdu expressions may still contain cultural connotations that influence participants' responses. Future research could penetrate deeper into the interface between language and cultural context, and what these do to self-reports (Fox & Freeman, 2011).

There is a probability of the respondent bias because of socially desirable responses and underreporting some behaviors. The study, which focuses on offenders in Rawalpindi District, may have limited applicability to other cultural or geographical areas. Different populations manifest criminal behavior and personality traits alike in a wide variety of ways.

This study suggests more avenues need to be explored. To deepen the understanding of socio-cognitive factors influencing criminal behavior, Longitudinal studies are indispensable. It requires studying how these factors change over time that will shed light on the developmental processes associated with narcissism and criminal behavior.

Comparative research spanning different cultural contexts permits transferring the generalizability of findings, and identifies potentially unique impressions in heterogeneous societies. Future studies should go into this matter to evaluate the effectiveness of specific interventions aimed at people with narcissistic symptoms. Separating reality from exaggerated claims, these programs have the potential to make positive changes and enhance people's lives (Osgood, 2023).

### **Future Implications**

The research study on the relation between narcissistic personality traits, hostile attribution bias, social control, and crime in Rawalpindi District can significantly contribute to increasing awareness about these factors in the context of Pakistan. Exploring the relation between these cognitive and social factors can aid in therapeutic scenarios. Understanding these relationships is crucial for identifying risk factors and developing effective interventions and policies. The findings can guide policymakers, law enforcement agencies, and social workers in addressing the root causes of crime and improving public safety. This study can serve as a foundation for broader investigations into criminal behavior across the country, leading to evidence-based strategies and national-level interventions. It can foster discussions among stakeholders and raise public awareness about the factors contributing to criminal behavior, promoting proactive crime prevention. The insights gained from this research can inform culturally appropriate interventions, policy development, and criminal justice reforms that address social inequality, education, employment, rehabilitation, and community-based initiatives.

Outcomes provide us with evidence of specific areas that can be targeted for intervention. Tailored programs need to be precisely adjusted to meet the requirements of individuals with and without promising job opportunities, as well as those from diverse family backgrounds where professional status is attributed more to education than to trade skills. Recognizing that among criminal offenders, family structures and having jobs influence psychological well-being might yield practical help. Analyzing the underlying mechanisms of these differences might serve as subject matter for further studies, thus contributing toward intervention with a human face in situations where people are locked up.

Our cultures' specific setting in Pakistan provides an opportunity to understand in detail with socio-cognitive facets of crime in a specific cultural setup. Using this comparative approach aims to emphasize the importance of considering cultural differences in how personality traits are expressed and their impact on criminal intent.

The significance of this research is that it can help guide interventions that investigate and manage factors related to criminal behavior. It illuminates how narcissistic personality traits, social bonding, and hostile attribution bias are related; for policymakers, psychologists, and enterprises in criminal justice these insights are of great interest. Recognizing these dynamics is necessary for designing interventions aimed at counteracting cognitive biases, building social bonds, and customizing rehabilitation programs for various offenders. This knowledge, based on evidence, contributes to practices within the justice system, making ways for new and more effective strategies for reducing recidivism or restoring people after imprisonment.

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## Appendices

### Appendix A - Informed consent

#### اجازت نامہ

میں کیپٹل یونیورسٹی آف سائنس اینڈ ٹیکنالوجی کے ادارہ نفسیات کی طالبہ ہوں۔ یہ ایک ایسا ادارہ ہے جو تدریس و تعلیم کے ساتھ ساتھ انسانی اور معاشرتی مسائل پر ریسرچ بھی کرتا ہے۔ موجودہ ریسرچ اسی سلسلے کی جارہی ہے۔ جس کے لیے ہمیں آپ کا تعاون درکار ہے۔ ہم آپ کی خدمت میں مندرجہ ذیل سوال نامہ پیش کر رہے ہیں۔ آپ سے درخواست ہے کہ ہر سوال نامے کے ساتھ دی گئی ہدایات کو غور سے پڑھیں۔ اور ان کی روشنی میں جوابات دیں۔ ہم آپ کو یقین دالتے ہیں کہ آپ کی فراہم کردہ معلومات صیغہ راز میں رکھی جائیں گی۔ اور صرف ریسرچ کے مقاصد کے لئے استعمال کی جائے گی۔

----- تاریخ -----

----- شرکاء -----

**Appendix B - Demographic sheet**

پہلے چند سوال آپ کے متعلق۔

۱۔ عمر -----

۲۔ جنس -----

۳۔ تعلیم -----

۴۔ پیشہ -----

۵۔ ازواجی حیثیت -----

۶۔ خاندانی نظام -----

۷۔ مدت قید -----



- ۶ ----- میں ایک عظیم انسان ہوں گا
- مجھے امید ہے میں کامیاب ہوں گا
- ۷ ----- لوگ کبھی کبھی میری باتوں پر یقین کرتے ہیں
- میں کسی کو بھی یقین کروا سکتا ہوں اس پر جو میں چاہوں
- ۸ ----- مجھے دوسرے لوگوں سے بہت زیادہ توقع ہے
- مجھے دوسروں کے لیے چیزیں کرنا پسند ہے
- ۹ ----- مجھے توجہ کا مرکز بننا پسند ہے
- میں بھیڑ کے ساتھ گھل مل جانے کو ترجیح دیتا ہوں
- ۱۰ ----- میں بہت زیادہ دوسروں کی طرح ہوں
- میں ایک غیر معمولی شخص ہوں
- ۱۱ ----- میں ہمیشہ جانتا ہوں کہ میں کیا کر رہا ہوں
- کبھی کبھی میں نہیں جانتا کہ میں کیا کر رہا ہوں
- ۲۱ ----- مجھے اچھا نہیں لگتا جب میں خود کو لوگوں کے ساتھ ساز باز کرتا پاتا ہوں
- مجھے لوگوں کے ساتھ ساز باز کرنا آسان لگتا ہے
- ۳۱ ----- با اختیار ہونا میرے لیے اتنا معنی نہیں رکھتا
- لوگ ہمیشہ میرے اختیار کو تسلیم کرتے نظر آتے ہیں
- ۴۱ ----- میں جانتا ہوں کہ میں اچھا ہوں کیونکہ ہر کوئی مجھے بتا رہا ہوتا ہے
- مجھے کبھی کبھی شرمندگی محسوس ہوتی ہے جب لوگ میری تعریف کرتے ہیں
- ۵۱ ----- میں کوشش کرتا ہوں کہ میں دکھاوے باز نہ بنوں
- اگر مجھے موقع ملے تو میں دکھاوے کے لیے موضوع ہوں
- ۶۱ ----- میں باقی لوگوں سے زیادہ قابل ہوں
- بہت کچھ ہے جو میں دوسرے لوگوں سے سیکھ سکتا ہوں

### Appendix D – The Social Bonding Scale

ہدایت:

مندرجہ ذیل سوالات میں سے ہر ایک کے لیے، شرح کے لحاظ سے مخصوص سرگرمی کی عمومی موجودگی زمرے فراہم کیے گئے۔ براہ کرم، آپ کے منتخب کردہ جواب پر دائرہ لگائیں۔

۱۔ میرے والدین جانتے ہیں کہ جب میں گھر سے دور ہوتا ہوں تو میں کہاں ہوتا ہوں۔  
ہمیشہ عام طور پر کبھی کبھی کبھی نہیں

۲۔ میرے والدین جانتے ہیں کہ جب میں گھر سے دور ہوتا ہوں تو کس کے ساتھ ہوتا ہوں۔  
ہمیشہ عام طور پر کبھی کبھی کبھی نہیں

۳۔ جب مجھے کوئی پریشانی ہوتی ہے تو میرے والدین میری مدد کرنا چاہتے ہیں۔  
ہمیشہ عام طور پر کبھی کبھی کبھی نہیں

۴۔ میرے والدین جانتے ہیں کہ میرے لیے کیا بہتر ہے۔  
ہمیشہ عام طور پر کبھی کبھی کبھی نہیں

۵۔ میں اور میرے والدین میرے مستقبل کے منصوبوں پر بات کرتے ہیں۔  
ہمیشہ عام طور پر کبھی کبھی کبھی نہیں

۶۔ میرے والدین بتاتے ہیں کہ وہ ایسا کیوں محسوس کرتے ہیں جیسا وہ کرتے ہیں۔  
ہمیشہ عام طور پر کبھی کبھی کبھی نہیں

۷۔ میں اپنے والدین کے ساتھ اپنے خیالات اور احساسات بانٹ سکتا ہوں۔  
ہمیشہ عام طور پر کبھی کبھی کبھی نہیں

۸۔ جب میرے والدین کوئی اصول بتاتے ہیں جو مجھے سمجھ نہیں آتا، تو وہ اس کی وجہ بیان کرتے ہیں۔  
ہمیشہ عام طور پر کبھی کبھی کبھی نہیں

۹۔ میں اس بات کی پرواہ کرتا ہوں کہ میرے اساتذہ میرے بارے میں کیا سوچتے ہیں۔  
ہمیشہ عام طور پر کبھی کبھی کبھی نہیں

- ۱۰۔ میرے اساتذہ جانتے ہیں کہ میرے لیے کیا بہتر ہے۔  
 ہمیشہ عام طور پر کبھی کبھی کبھی نہیں
- ۱۱۔ میں اسکول میں بہت محنت کرتا ہوں۔  
 ہمیشہ عام طور پر کبھی کبھی کبھی نہیں
- ۱۲۔ جب مجھے کوئی پریشانی ہو تو میرے اساتذہ میری مدد کرنا چاہتے ہیں  
 ہمیشہ عام طور پر کبھی کبھی کبھی نہیں
- ۱۳۔ میں اپنے خیالات اور احساسات اپنے اساتذہ کے ساتھ بانٹتا ہوں۔  
 ہمیشہ عام طور پر کبھی کبھی کبھی نہیں
- ۱۴۔ میں اسکول کو ناپسند کرتا ہوں۔  
 ہمیشہ عام طور پر کبھی کبھی کبھی نہیں
- ۱۵۔ جو چیزیں میں اسکول میں کرتا ہوں وہ مجھے قابل قدر اور بامعنی لگتی ہیں۔  
 ہمیشہ عام طور پر کبھی کبھی کبھی نہیں
- ۱۶۔ اچھے درجات (تعلیمی) حاصل کرنا میرے لیے اہم ہے۔  
 ہمیشہ عام طور پر کبھی کبھی کبھی نہیں
- ۱۷۔ اسکول میں حاضری میرے لیے اہم ہے۔  
 ہمیشہ عام طور پر کبھی کبھی کبھی نہیں



۸۱۔ جو بھی میرے مقاصد ہوں، میں ان کو حاصل کرنے کی بھرپور کوشش کرتا ہوں۔

ہمیشہ عام طور پر کبھی کبھی کبھی نہیں

۹۱۔ میرے دوست میری ضروریات اور مسائل کو سمجھتے ہیں۔

ہمیشہ عام طور پر کبھی کبھی کبھی نہیں

۱۰۲۔ اگر میں واقعی میں بڑی مصیبت میں خود کو پھنسا لوں، تو میرے دوست میرے ساتھ

کھڑے ہوں گے۔

ہمیشہ عام طور پر کبھی کبھی کبھی نہیں

۱۲۔ میرے دوست میری مدد کرنا چاہتے ہیں جب مجھے کوئی پریشانی ہو۔

ہمیشہ عام طور پر کبھی کبھی کبھی نہیں

۲۲۔ میں اپنے خیالات اور احساسات اپنے دوستوں کے ساتھ بانٹ سکتا ہوں۔

ہمیشہ عام طور پر کبھی کبھی کبھی نہیں

۳۲۔ میرے قریبی دوست مقامی پولیس کا احترام کرتے ہیں۔

ہمیشہ عام طور پر کبھی کبھی کبھی نہیں

۴۲۔ میرے قریبی دوست پولیس کے ساتھ مشکل میں پڑ جاتے ہیں۔

ہمیشہ عام طور پر کبھی کبھی کبھی نہیں

- ۵۲۔ میرے دوست اپنے والدین کے ساتھ مشکل میں پڑ جاتے ہیں۔  
 ہمیشہ عام طور پر کبھی کبھی کبھی نہیں
- ۶۲۔ میرے دوست اپنے اساتذہ کا احترام کرتے ہیں۔  
 ہمیشہ عام طور پر کبھی کبھی کبھی نہیں
- ۷۲۔ میرے دوست اسکول میں مشکل میں پڑ جاتے ہیں۔  
 ہمیشہ عام طور پر کبھی کبھی کبھی نہیں
- ۸۲۔ میرے دوست اصولوں پر عمل اور مصیبت سے دور رہنے کی کوشش کرتے ہیں  
 ہمیشہ عام طور پر کبھی کبھی کبھی نہیں
- ۹۲۔ میرے دوست اپنے والدین کا احترام کرتے ہیں۔  
 ہمیشہ عام طور پر کبھی کبھی کبھی نہیں





۶ ۵ ۴ ۳ ۲ ۱

۱۱۔ کوئی آپ کے قالین کی گندگی پر غور کرتا ہے ----- بے عزتی  
بہت متعلقہ بالکل تعلق نہیں

۶ ۵ ۴ ۳ ۲ ۱

۲۱۔ آپ کا دوست آپ کی باتوں کا جواب نہیں دیتا ----- بے فکر  
بہت متعلقہ بالکل تعلق نہیں

۶ ۵ ۴ ۳ ۲ ۱

۳۱۔ کوئی آپ کو گھورتا ہے ----- دشمنی  
بہت متعلقہ بالکل تعلق نہیں

۶ ۵ ۴ ۳ ۲ ۱

۴۱۔ ایک دوست آپ پر ہنستا ہے ----- لطف اندوز  
بہت متعلقہ بالکل تعلق نہیں

۶ ۵ ۴ ۳ ۲ ۱

۵۱۔ کوئی آپ کے راستے میں ہے ----- لا پرواہ  
بہت متعلقہ بالکل تعلق نہیں

۶ ۵ ۴ ۳ ۲ ۱



۶ ۵ ۴ ۳ ۲ ۱

۳۲۔ کوئی آپ سے ٹکرایا ----- جارحانہ  
بہت متعلقہ بالکل تعلق نہیں

۶ ۵ ۴ ۳ ۲ ۱

۳۳۔ جب آپ پڑھ رہے ہو تو کوئی بات کر رہا ہے ----- بے توجہی  
بہت متعلقہ بالکل تعلق نہیں

۶ ۵ ۴ ۳ ۲ ۱

۳۴۔ کوئی آپ پر گیند پھینکتا ہے ----- بے عزتی۔  
بہت متعلقہ بالکل تعلق نہیں

۶ ۵ ۴ ۳ ۲ ۱

۵۲۔ ایک خریدار کی ٹوکری آپ سے گراتی ہے ----- حادثاتی  
بہت متعلقہ بالکل تعلق نہیں

۶ ۵ ۴ ۳ ۲ ۱

۶۲۔ آپ کا دوست آپ کی گاڑی میں کوڑا چھوڑ جاتا ہے ----- بدتمیز  
بہت متعلقہ بالکل تعلق نہیں

۶ ۵ ۴ ۳ ۲ ۱

۷۲۔ کوئی آپ کے قالین کی گندگی پر غور کرتا ہے ----- بے خبر  
 بہت متعلقہ بالکل تعلق نہیں

۶ ۵ ۴ ۳ ۲ ۱

۸۲۔ کوئی آپ کا راستہ روکتا ہے ----- بے فکر  
 بہت متعلقہ بالکل تعلق نہیں

۶ ۵ ۴ ۳ ۲ ۱

۹۲۔ دروازہ آپ کے سامنے زور سے بند ہوتا ہے ----- غیر ارادی  
 بہت متعلقہ بالکل تعلق نہیں

۶ ۵ ۴ ۳ ۲ ۱

۱۰۳۔ آپ کا دوست آپ کی گاڑی میں کوڑا چھوڑ جاتا ہے ----- قابل معافی  
 بہت متعلقہ بالکل تعلق نہیں

۶ ۵ ۴ ۳ ۲ ۱

۱۳۔ کوئی آپ کو گھورتا ہے ----- ناخوش  
 بہت متعلقہ بالکل تعلق نہیں

۶ ۵ ۴ ۳ ۲ ۱


۲۳۔ ایک دوست آپ کو سلام نہیں کرتا ----- نظر انداز  
 بہت متعلقہ بالکل تعلق نہیں

۶ ۵ ۴ ۳ ۲ ۱



## Appendix F – Permissions of Scales

1.

 **Ames, Daniel** <daniel.ames@gsb.columbia.edu>  
to me, da358@columbia.edu ▾ Thu, Jun 1, 2023, 10:42 PM


Thanks for your interest. Feel free to use the **NPI 16** for research purposes. You can find out more about the scale here:

<http://www.columbia.edu/~da358/npi16/>

Good luck with your research.

Best regards,  
Daniel

2.

 **Kirsten Dillon, Ph.D.** <kirsten.dillon@duke.edu>  
to me ▾ Mon, Jul 17, 2023, 10:13 PM

Hi Muneeba,

Sure, I would be happy for you to use the scale. I have attached the scale, instructions, and article here. Please let me know if you have any questions.

Kirsten  
...


**3 Attachments** • Scanned by Gmail

WSAP-H Pen and ...

WSAP-H\_revised...

Dillon et al., 2016...

3a.

 **Robert Gardner** <gardnerl@usf.edu>  
to me, permissionrequest@tandf.co.uk ▾ Mon, Oct 16, 2023, 3:46 AM

Hello Muneeba,

Unfortunately, that study was completed over 40 years ago and I no longer have any of the documentation. It was all done on pencil and paper and the boxes of paperwork are long gone after numerous moves back and forth across the country.


Otherwise, you have my permission to use whatever you find.

Good luck with your project.

Message sent via cellphone by:

R. LaGrande Gardner, PhD, CFCE, 3CE  
Associate Professor of Instruction,  
Director, Cybercrime MS Degree Program,  
Department of Criminology  
University of South Florida, Tampa  
4202 E. Fowler Avenue, SOC 107  
Tampa FL, 33620

3b.

 **Robert Gardner** <gardnerl@usf.edu>  
to me ▾ Tue, Oct 17, 2023, 5:17 AM

Hello Muneeba,

I just recalled that there is a digital scan of the entire dissertation on file at Virginia Tech. It will have all the scales used as well as the questionnaires:

<https://vtechworks.lib.vt.edu/handle/10919/74696>

Click on View/Open and a PDF will download.

Good luck,

LeGrande Gardner