American Journal of Psychiatric Rehabilitation

Expert Opinion Article

Profiling Antisocial Personality Traits Among Pakistani Adults: Domain-Specific Differences Across Gender

Kishwar Altaf[1*], Shazia Sherani[2], Bibi Zainab[2], Benazir Lashari[3], Nayab Kanwal[4], Fatima Sattar[5]

[1*]Bahria University, Islamabad, Pakistan, Email: kishwaraltaf0@gmail.com
[2]Riphah International University, Islamabad, Pakistan
[2]Starshine Kindergarten Sichuan, China
[3]International Islamic University, Islamabad, Pakistan
[4]Capital University of Science and Technology, Islamabad, Pakistan
[5]Shifa Tameer e Millat University, Islamabad, Pakistan

Submission Date: 30/12/2025, Revised Dates: 6/1/2026, Accepted Date: 27/1/2026 Publication Date: 6/2/2026

Abstract

Antisocial personality traits include a variety of socially dysfunctional or maladaptive behavioral, emotional and interpersonal attributes that lead to dysfunction within the individual or society (Fisher et al., 2024). Although a lot of research work has been conducted both nationally and internationally, there is little evidence available about the prevalence and domain-specific expression of antisocial personality traits among Pakistani adults (Marzilli et al., 2021). The purpose of this study was to profile antisocial personality characteristics and to compare differences between the various major domains of antisocial personality across gender. A quantitative cross sectional research design was used. A convenient sampling method was used to gather data from 567 adults in Pakistan. The antisocial personality traits were evaluated by the Antisocial Personality Disorder Test created by Skowroński (2022). IBM SPSS Statistics was used for descriptive statistics, classifications based on tertiles, chi-square analysis, and independent-samples t-tests. The scale had a good internal consistency (α = .88). The descriptive results showed that the most salient domains were egocentrism, risk taking, incapacity for intimate relationships, while physical aggression had the least mean score. Subjects were distributed about equally across low, moderate and high scores on the antisocial personality traits. Significant gender differences emerged for all antisocial personality traits, physical aggression, absence of prosocial standards, lack of guilt or remorse, failure to form intimate relationships, and risk taking; males scored higher than females. There were no significant gender differences for lack of empathy, egocentrism or manipulativeness. These were statistically significant results but in general small effect sizes. The results are consistent with the multidimensionality of the antisocial personality traits and indigenous information on prevalence and gender differences in the distribution of these traits among Pakistani adults. The findings stress the need for an assessment tailored to the specific context in order to gain a better understanding of antisocial personality functioning and to inform the development of culturally relevant prevention and intervention programs.

Keywords: antisocial personality traits; gender differences; personality functioning; antisocial behavior

INTRODUCTION

Human behavior is a function of complex biological, psychological and social factors that promote adaptation and functioning within a social context (Sharma & Gupta, 2024). Facilitating meaningful interpersonal relationships, managing emotions, understanding others and respecting social rules are important factors for individual well-being and social cohesion (Pietromonaco & Collins, 2017). Not everyone has prosocial patterns of functioning, however. Others have chronic patterns of behaviour including aggression, impulsiveness, manipulation, risk-taking behaviour, lack of interest in social rules and lack of sensitivity to rights and feelings of others (Hay et al., 2021). Often characterized as antisocial personality attributes, they have been the subject of extensive study, owing to the widespread impact that they have on people, their families and society (Fisher et al., 2024). Antisocial Personality Traits are persistent patterns of thoughts, feelings, and actions that are characterized by a tendency to violate social norms and expectations (Mazza et al., 2025). People with high levels of antisocial personality often exhibit aggression, deceptiveness, irresponsibility, lack of empathy, low guilt or remorse, manipulativeness, and problems with interacting closely with others (Shin-Yee Wong, 2023). These traits tend to correlate with personal relationship problems, conflict, job stress, drug and alcohol abuse, delinquency and heightened risky behaviour (Zeng et al., 2021). Thus, antisocial personality traits have been identified as one of the most socially disruptive types of personality pathology and have a significant psychological, legal, economic

and public health cost to communities around the world (Black, 2015).

Over the past few decades, the social effects of antisocial behavior have more and more become recognized by researchers and policymakers (Monahan et al., 2009). Antisocial behaviors have been associated with acts of violence, vandalism, substance-related offenses, disruption of the community and other behaviors that negatively affect social order and public safety. There has been a recurring trend of reports of aggression, violence and anti-social behaviour in children and young people across education and community settings (Shepherd, 2003). These concerns are especially significant because antisocial behaviors can manifest as frequent acts, or as personality traits that continue to develop throughout the adulthood (Chen et al., 2026). Thus, insights into the nature and distribution of antisocial personality traits continue to be an important goal for both researchers and practitioners working to foster psychological health and social stability.

Epidemiological studies have shown that antisocial personality pathology is found in various populations and cultures. The prevalence rate for Antisocial Personality Disorder (ASPD) is generally between 3% and 5% in community samples, and higher rates (around 2% to 16%) of ASPD-like traits and attitudes are reported in the general population, depending on assessment methods, criteria, and population characteristics (Black, 2025). Likewise, lifetime prevalence figures in USA indicate that about 3.6% of the population will have a diagnosis of ASPD sometime in their life. While the clinical incidence of antisocial personality is relatively low, subclinical antisocial aspects of personality are far more common and may have substantial effects on social functioning, social relationships, and behavior (Black, 2025). The results indicate that the study of antisocial personality in community populations is also significant and worthy of consideration.

In modern literature, the development of antisocial personality traits has also been highlighted. Studies have shown that antisocial behavior tends to start early and then gradually increases during the teen years and into adulthood (Mazza et al., 2025). Between the ages of 18 and 25, this developmental time frame is known as emerging adulthood and has been identified as an important window for understanding personality development. People make significant transitions in education, employment, and relationships during this time of life (Hochberg & Konner, 2020). Personality traits become more stable at this time and behavioral patterns formed during this time are more likely to continue into adulthood. While antisocial behaviors tend to be highest during the teen years, they decline as people get older; there is a lot of variation in what happens to each person (Marzilli et al., 2021). A few individuals exhibit persistent antisocial behaviors that remain to affect them in multiple life domains, making it important to explore antisocial personality traits among adults (Black, 2025).

Gender has been one of the most long-studied of demographic correlates of antisocial personality traits. Previous research has shown that males are significantly more likely than females to behave aggressively and violently and to engage in anti-social acts (Alegria et al., 2013). Epidemiological studies indicate that rates of ASPD are nearly three times higher in males than females with estimated prevalence rates of nearly 6% in males and approximately 2% in females (Alegria et al., 2013). Moreover, males make up the vast majority of the world's violent crimes. The gender differences have been often attributed to biological factors, socialization process, gender role expectations and differential exposure to environmental risk factors (Ling et al., 2019). However, modern researchers have noted that antisocial personality characteristics are not monolithic. Rather, various domains of antisocial functioning may show differential patterns by gender and require further subtyping of specific antisocial personality dimensions (De Wit-De Visser et al., 2023). More recent theories have tried to view antisocial personality as a multi-dimensional construct with a number of interrelated domains. They are physical aggression, lack of empathy, absence of prosocial standards, absence of guilt or remorse, incapacity for intimate relationships, risk taking, egocentrism, and manipulativeness (Skowroński, 2022). These domains represent distinct dimensions of antisocial personality functioning that can have varying impacts on problematic behavioral outcomes. For instance, physical aggression is manifested as manifest hostility towards others, while manipulativeness is the manipulation of interpersonal relations for self interest. Emotional and moral deficits are represented by lack of empathy and absence of guilt, and impulsive and self-centered behavior, represented by risk-taking and egocentrism. Analyzing these domains individually gives a more detailed insight into antisocial personality functioning than would globally. Although there is high volume of literature from around the world concerning antisocial personality pathology, there are significant omission points in the existing literature. Most studies have been conducted on clinical populations, forensic samples and incarcerated populations or adolescents and comparatively less focus has been placed on antisocial personality traits within community based adult populations (Impelen et al., 2016). In addition, while gender differences have been studied in total scores of antisociality, few studies have focused on gender differences in patterns of antisocial personality traits. Consequently, there is little information available concerning gender differences on the various dimensions of antisocial personality and the

prevalence of the personality traits in community samples.

These limitations are particularly evident within the Pakistani context. Indigenous research examining antisocial personality traits remains scarce, and existing studies have primarily focused on aggression, delinquency, criminal behavior, or substance use rather than comprehensive multidimensional assessments of antisocial personality functioning. Therefore, there is limited information regarding the prevalence and distribution of individual domains of antisocial personality among Pakistani adult population. Findings from other populations may not be directly applicable to Pakistan as social norms, family structure, expectations of the role of women and interpersonal relationships vary widely between Pakistan and many Western nations. Thus, it is clear that indigenous studies are needed that explore the expression of antisocial personality traits in Pakistani samples. Therefore, the study proceeds to examine the prevalence, distribution and gender differences in antisocial personality traits at the level of the total personality and its sub-domains.

METHOD

Research Design

In the present study, a quantitative cross sectional research design was used to explore the prevalence and distribution of antisocial personality traits in adults of Pakistan and to explore gender differences across domains of antisocial personality.

Sample

Convenience sampling technique was used to reach out to 567 Pakistani adults (N = 567). The sample detailed demographic characteristics are shown in Table 1.

Table 1 Demographic Characteristics of the Sample (N = 567)

Variable	Category	f	%
Gender	Male	271	47.8
	Female	296	52.2
Education	Intermediate	239	42.2
	Undergraduate	211	37.2
	Postgraduate	117	20.6
Family System	Nuclear	313	55.2
	Joint	254	44.8
Living Type	Living alone	96	16.9
	Living with Parents	344	60.7
	Living with Partner	127	22.4

Note. f = frequency; % = percentage

MEASURES

Antisocial personality disorder test

The antisocial personality traits in the present study were assessed using Antisocial Personality Disorder Test elaborated by Skowroński (2022). This instrument consists of 40 items aimed at evaluating multidimensional aspects of antisocial personality traits. The scale includes eight dimensions of antisocial personality functioning: Physical Aggression, Lack of Empathy, Absence of Prosocial Standards, Lack of Guilt or Remorse, Incapacity for Intimate Relationships, Risk Taking, Egocentrism and Manipulativeness.

PROCEDURES

Participants were contacted in a variety of community and educational forums and informed about the purpose and nature of the study. Participation was entirely voluntary and informed consent was obtained before data collection. It was ensured that the responses of the participants would be anonymous and confidential, and only for research purposes. They also had the option to opt out of the study at any time without any consequences. After the consent form, participants were asked to fill out a demographic information form and the Antisocial Personality Disorder Test. After data collection, the answers were screened, coded and analyzed using IBM SPSS Statistics 22.

Statistical Analysis

IBM SPSS Statistics 22 was used to analyze data. Descriptive statistics were obtained for the distribution of antisocial personality traits and domains. Participants were divided into three groups (low, moderate, and high) by a tertile classification procedure. The frequencies and percentages were then determined for each category. Chi-square analysis was used to examine gender differences across categorical levels of antisocial personality traits. Independent-samples t-tests were also conducted to evaluate gender differences while having significant level at $p<0.05$ was considered.

RESULTS

The Antisocial Personality Disorder Test demonstrated good reliability in the current sample, with a Cronbach's alpha coefficient of .88.

Table 2 Descriptive Statistics of Study Variables among Adults (N = 567)

Variables	M	SD	Skewness	Kurtosis
Antisocial personality traits (total)	95.65	16.34	-.04	1.05
Physical Aggression	11.41	2.94	.16	-.10
Lack of Empathy	12.04	2.75	.12	-.07
Absence of Prosocial Standards	11.63	3.13	.04	-.54
Lack of Guilt or Remorse	11.65	3.07	-.07	-.45
Incapacity for Intimate Relationships	12.11	2.61	-.02	.12
Risk Taking	12.34	2.58	.07	.33
Egocentrism	12.50	2.56	-.13	.13
Manipulativeness	11.97	2.83	.10	-.24

Note. M = Mean; SD = Standard Deviation

Table 2 shows the descriptives statistics of scale and its subscales. The highest mean score was observed for Egocentrism (M = 12.50, SD = 2.56), followed by Risk Taking (M = 12.34, SD = 2.58) and Incapacity for Intimate Relationships (M = 12.11, SD = 2.61). The lowest mean score (M = 11.41, SD = 2.94) was obtained for Physical Aggression. In addition, the Skewness and Kurtosis values for all the variables were within acceptable limits suggesting that all the distributions were normally distributed.

Table 3 Distribution of Participants Across Levels of Antisocial Personality Traits (N = 567)

Variables	Low f (%)	Moderate f (%)	High f (%)
Physical Aggression	212 (37.4)	163 (28.7)	192 (33.9)
Lack of Empathy	170 (30.0)	227 (40.0)	170 (30.0)
Absence of Prosocial Standards	214 (37.7)	184 (32.5)	169 (29.8)
Lack of Guilt or Remorse	203 (35.8)	192 (33.9)	172 (30.3)
Incapacity for Intimate Relationships	224 (39.5)	175 (30.9)	168 (29.6)
Risk Taking	202 (35.6)	184 (32.5)	181 (31.9)
Egocentrism	191 (33.7)	182 (32.1)	194 (34.2)
Manipulativeness	180 (31.7)	207 (36.5)	180 (31.7)
Total Antisocial Personality Traits	193 (34.0)	198 (34.9)	176 (31.0)

Note. f = frequency; % = percentage; Categories were generated using tertile-based classification, where participants were grouped into low, moderate, and high levels of Antisocial Personality Traits according to percentile distribution.

Table 3 displays the distribution of the participants by low, moderate and high levels of antisocial personality traits and their corresponding domains. The distribution of the participants was approximately equal between the three categories overall. The most common were moderate levels of lack of empathy and manipulativeness, which suggests these traits were moderately experienced within the samples. The highest percentage of participants were categorized as "high" on the measure of egocentrism, indicating a more pronounced tendency to have self-centered attitudes than the other antisocial personality domains. Physical aggression, absence of prosocial standards, lack of guilt or remorse, lack of ability to form intimate relationships and risk taking showed relatively balanced distribution between low, moderate and high category, implying the variability in the manifestation of the above traits across Pakistani adults.

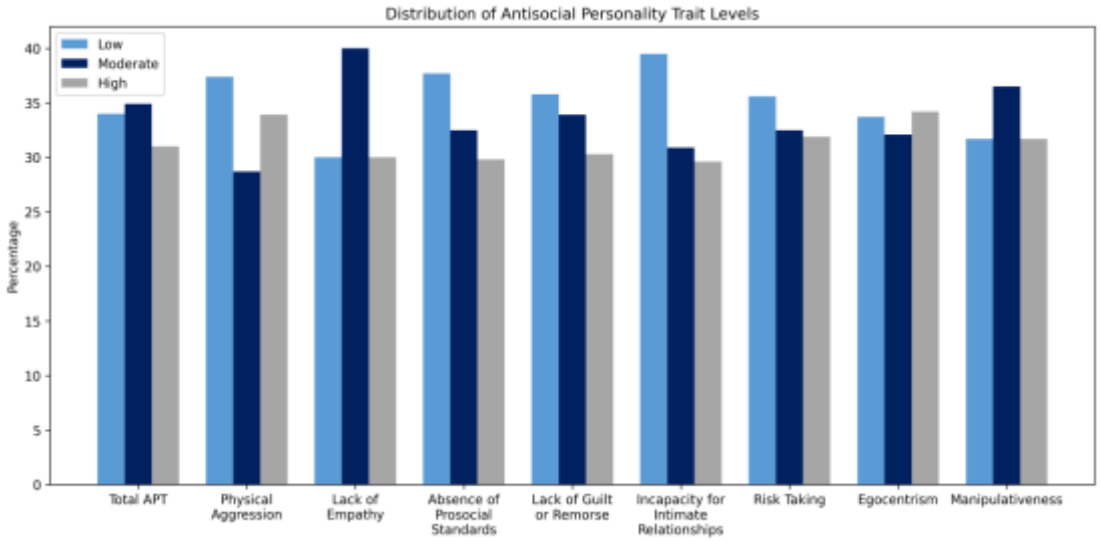


Table 4 Gender Differences Across Levels of Antisocial Personality Trait Domains (N = 567)

Variables	Gender	Low f (%)	Moderate f (%)	High f (%)	χ^2	p
Antisocial Personality Traits	Male	70 (25.8)	105 (38.7)	96 (35.4)	15.66	< .001
	Female	123 (41.6)	93 (31.4)	80 (27.0)		
Physical Aggression	Male	80 (29.5)	87 (32.1)	104 (38.4)	13.76	.001
	Female	132 (44.6)	76 (25.7)	88 (29.7)		
Lack of Empathy	Male	74 (27.3)	114 (42.1)	83 (30.6)	1.85	.397
	Female	96 (32.4)	113 (38.2)	87 (29.4)		
Absence of Prosocial Standards	Male	80 (29.5)	96 (35.4)	95 (35.1)	15.51	< .001
	Female	134 (45.3)	88 (29.7)	74 (25.0)		
Lack of Guilt or Remorse	Male	71 (26.2)	104 (38.4)	96 (35.4)	20.93	< .001
	Female	132 (44.6)	88 (29.7)	76 (25.7)		
Incapacity for Intimate Relationships	Male	95 (35.1)	83 (30.6)	93 (34.3)	6.46	.040
	Female	129 (43.6)	92 (31.1)	75 (25.3)		
Risk Taking	Male	75 (27.7)	95 (35.1)	101 (37.3)	14.95	.001
	Female	127 (42.9)	89 (30.1)	80 (27.0)		
Egocentrism	Male	92 (33.9)	84 (31.0)	95 (35.1)	.31	.855
	Female	99 (33.4)	98 (33.1)	99 (33.4)		
Manipulativeness	Male	80 (29.5)	97 (35.8)	94 (34.7)	2.30	.317
	Female	100 (33.8)	110 (37.2)	86 (29.1)		

Note. f = frequency; % = percentage; χ^2 = Chi-Square statistic.

The gender differences are shown in Table 4 according to low, moderate and high scores of the domains of the antisocial personality traits. The results were significant for total antisocial personality traits, physical aggression, absence of prosocial standards, lack of guilt or remorse, inability to form intimate relationships, and risk taking with gender. In each of these domains, the male participants were over represented in the high-level categories and the female participants were over represented in the low-level categories. The biggest gender difference was noted for lack of guilt/remorse, and secondly, total antisocial personality traits and absence of prosocial standards. No significant gender differences were found for lack of empathy, egocentrism and manipulativeness scores, suggesting that males and females had similar distributions in these subscales.

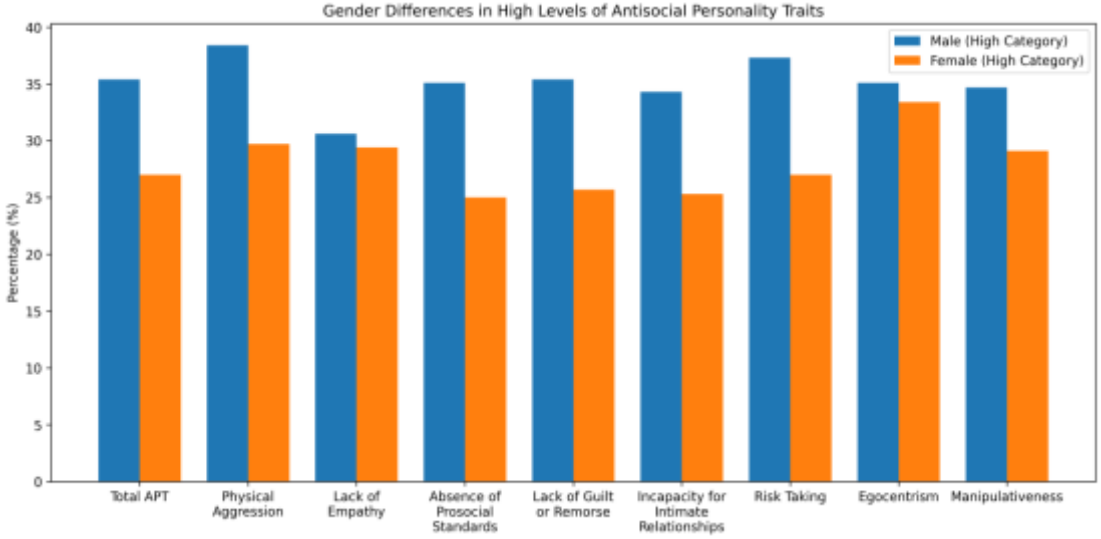
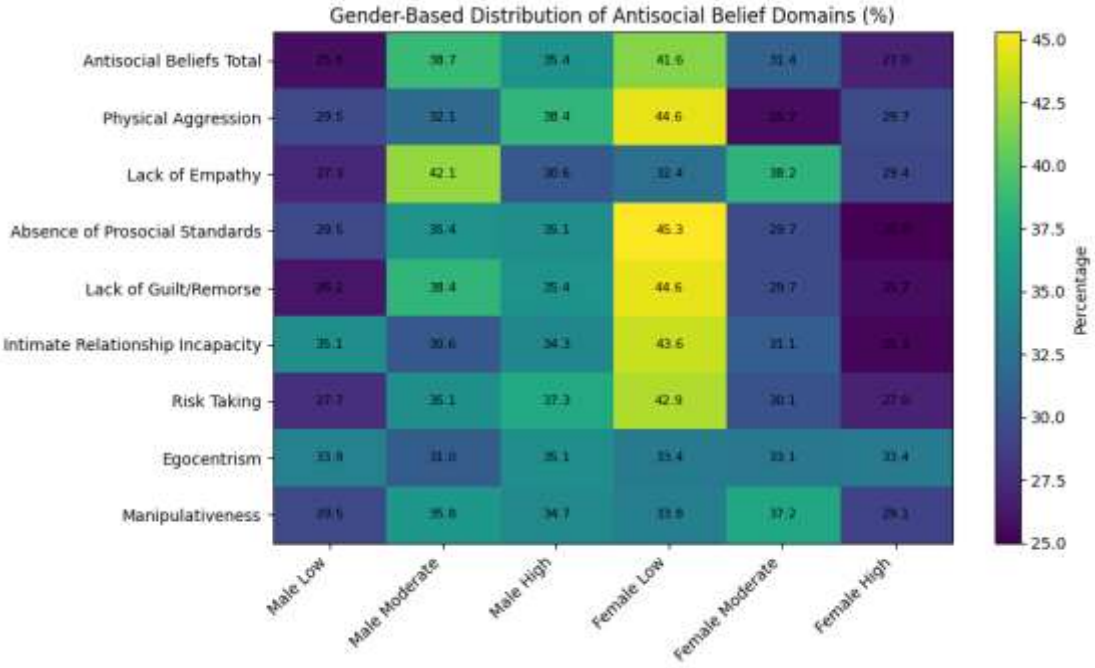


Table 5 Group Comparison of Antisocial Personality Traits across Gender (N = 567)

Variable	Male M (SD)	Female M (SD)	95% CI LL	95% CI UL	t	p	Cohen's d
Total Antisocial Personality Traits	98.03(14.67)	93.48(17.48)	1.90	7.21	3.37	.001	.28
Physical Aggression	11.78 (2.74)	11.06(3.08)	.24	1.20	2.92	.004	.25
Lack of Empathy	12.20 (2.58)	11.90(2.90)	-.16	.75	1.29	.199	.11
Absence of Prosocial Standards	12.08 (3.12)	11.22(3.09)	.35	1.37	3.30	.001	.28
Lack of Guilt or Remorse	12.15 (2.76)	11.19(3.27)	.46	1.46	3.79	< .001	.32
Incapacity for Intimate Relationships	12.40 (2.52)	11.84(2.68)	.13	.99	2.55	.011	.21
Risk Taking	12.72 (2.40)	11.99(2.68)	.31	1.15	3.40	.001	.29
Egocentrism	12.57 (2.41)	12.44(2.69)	-.29	.55	.62	.537	.05
Manipulativeness	12.13 (2.62)	11.83(3.01)	-0.17	0.77	1.25	.211	0.11

Note. M = sample mean; SD = standard deviation; CI = Confidence Interval; LL = Lower limit; UL = Upper limit; *p < .05. **p <.001.

The results presented in table showed that male participants had significantly higher scores on the overall antisocial personality traits than the female participants. Similarly, males scored significantly higher on physical aggression, absence of prosocial standards, lack of guilt or remorse, incapacity for intimate relationships, and risk taking. In contrast, no significant gender differences were observed for lack of empathy, ego-centrism, and manipulativeness. Thereby, the results indicated that males had more extreme scores than females on a number of domains of antisocial personality traits, but that effect sizes were typically small.



DISCUSSION

In the present study, antisocial personality traits were profiled in Pakistani adults and domain-specific gender differences explored across the various dimensions of antisocial personality functioning. In line with the study goals, the results gave a detailed report on the prevalence and distribution of antisocial personality traits in a community sample of adults in Pakistan. Antisocial personality traits were distributed across all levels, suggesting that sub-clinical antisocial characteristics are present within the general adult population. These findings support dimensional models of antisocial personality which propose that antisocial tendencies exist on a continuum rather than being restricted to clinical populations.

Furthermore, the findings demonstrated meaningful variation across the different domains of antisocial personality traits. Among the assessed dimensions, egocentrism showed the highest prominence, followed by risk taking and incapacity for intimate relationships, whereas physical aggression appeared comparatively less pronounced. This pattern suggests that, within non-clinical adult populations, antisocial personality characteristics may be more commonly reflected through self-oriented thinking, a tendency toward risky behaviors, and challenges in maintaining close interpersonal bonds rather than through direct aggressive or confrontational actions. The findings further indicate that antisocial personality traits can manifest in subtle forms that influence everyday attitudes and behaviors without necessarily reaching clinically significant levels. Higher levels of egocentrism may reflect greater emphasis on personal goals and self-interest, whereas elevated risk-taking tendencies may be linked to the demands, uncertainties, and pressures associated with contemporary adult life. Likewise, difficulties in intimate relationships may stem from broader interpersonal and emotional challenges that affect social functioning and relationship quality among adults.

One of the most important results found in the present study was the large gender differences in antisocial personality traits. Males had significantly higher scores than females on overall antisocial personality traits, physical aggression, absence of prosocial standards, lack of guilt or remorse, incapacity for intimate relationships and risk taking. The results are similar to other studies showing that male antisocial personality traits are more common than female traits in various cultures. Amin et al. (2018) and Im (2018) from social learning and gender socialization perspectives argue that boys are more likely to be socialized into norms that foster competitiveness, self-reliance, risk taking, and assertiveness, which can lead to increased antisocial personality functioning. Moreover, the traditional masculine norms rooted in self-reliance and emotional control can impede emotional intimacy and relational connection, further raising the risk of experiencing challenges in close relationships (Nordin et al., 2024).

Moreover, the relatively small sizes of the effects found for the various gender differences. The gap between males and females was small in most antisocial personality scales and facets but was consistent across them. This implies that gender is one of many factors and is associated with differences in antisocial personality functioning, but does not fully explain the

development or expression of antisocial traits. Factors related to the family environment, childhood, personality traits, social factors, and cultural influences may all contribute to the variability in antisocial personality functioning (Wesseldijk et al., 2017).

The results of the present study add to the body of evidence on antisocial personality traits as they extend the existing evidence in the Pakistani context. Most studies of antisocial personality have been done in Western populations, clinical samples, or in a forensic environment. The current study, however, explored antisocial personality traits in a non-clinical community sample of Pakistani adults, which offered valuable information on the prevalence and distribution of antisocial personality dimensions in an under-researched cultural context. Findings indicate that although there are generally comparable patterns of gender differences to those found internationally, there are important differences across the domains of antisocial personality functioning. These results emphasize the need to study antisocial personality features from a multidimensional standpoint instead of using total antisociality scores.

Implications

The results of the present study have theoretical and practical implications. Theoretically, the study emphasizes the study of antisocial personality traits in non-Western population because provided multidimensional profile of antisocial personality functioning among Pakistani adults is very limited in literature. The results also align with the current view of antisocial personality as a multidimensional construct, showing that the various dimensions can have different patterns within each demographic group. Therefore, using antisociality alone as a global assessment might mask relevant differences in subdomains of antisocial personality functioning.

Practical implications are that the recognition of differences in specific domains of the antisocial personality could help mental health practitioners, educators, or policymakers create specific prevention and intervention programs. Given the high levels of physical aggression, risk-taking, absence of guilt or remorse, and a lack of prosocial standards among males, there is potential for interventions emphasizing emotional regulation skills, development of empathy, moral reasoning, and healthy risk management. Moreover, raising awareness of subclinical anti-social personality traits can help the early identification of people who have a risk for interpersonal difficulties, maladaptive behavioral outcomes and more general psychosocial problems.

Limitations of the Study

There are some limitations that need to be taken into account when interpreting the present study's results. First, the cross-sectional design of the study makes it impossible to draw causal conclusions about the patterns of antisocial personality traits seen in this study. Second, participants' data was gathered with self-report measures which could be affected by social desirability response bias and subjective perception. Additionally, the study analyzed a non-clinical community sample and excluded other clinical, forensic, and incarcerated samples which could have more extreme antisocial personality traits.

Future Directions

The results of this study should be extended to broader and more representative samples in future studies. Longitudinal studies could help to identify how antisocial personality traits emerge and whether and how they change over time. Further research into the influence of family environment, parenting and attachment style, adverse childhood experiences and sociocultural factors on the development of antisocial personality traits can also be considered. Moreover, future research could be improved by the application of a mixed method approach to studying antisocial personality functioning and by the inclusion of community-based samples as well as clinical samples to improve the ecological validity and generalizability of the results. Future studies will benefit from continued investigation of the various domains of antisocial personality, as well as from an overall antisociality score.

CONCLUSION

The present study suggests that the antisocial personality traits in the Pakistani adults are multidimensional and reveals significant differences among various aspects of antisocial functioning. There were significant gender differences across a number of domains with males more likely to report higher levels of physical aggression, risk taking, absence of prosocial standards, lack of guilt or remorse, and difficulties in intimate relationships. The results of the study add to scanty indigenous literature on antisocial personality constructs and highlight the need for domain-specific evaluation in the context of understanding the functioning of antisocial personalities in Pakistan.

REFERENCES

1. Alegria, A. A., Blanco, C., Petry, N. M., Skodol, A. E., Liu, S.-M., Grant, B., & Hasin, D. (2013). Sex differences in antisocial personality disorder: Results from the National Epidemiological Survey on Alcohol and Related Conditions. Personality Disorders: Theory, Research, and Treatment, 4(3), 214–222. https://doi.org/10.1037/a0031681
2. Amin, A., Kågesten, A., Adebayo, E., & Chandra-Mouli, V. (2018). Addressing Gender Socialization and Masculinity Norms Among Adolescent Boys: Policy and Programmatic Implications. Journal of Adolescent Health, 62(3), 3–5.

https://doi.org/10.1016/j.jadohealth.2017.06.022

3. Black, D. (2015). The natural history of antisocial personality disorder. The Canadian Journal of Psychiatry, 60(7), 309–314. https://doi.org/10.1177/070674371506000703
4. Black, D. W. (2025). Antisocial personality disorder: current evidence and challenges. World Psychiatry, 24(2), 271–272. https://doi.org/10.1002/wps.21321
5. Chen, J. J., Rivera-Vernazza, D. E., Lin, J. C., & Spricigo, A. (2026). An Observational Study of Prosocial and Antisocial Behaviors in Preschool Children: Behavioral Patterns, Developmental Trends, and Contextual Differences. International Journal of Early Childhood, 58, 499–525. https://doi.org/10.1007/s13158-026-00491-3
6. De Wit-De Visser, B., Rijckmans, M., Vermunt, J. K., & van Dam, A. (2023). Pathways to antisocial behavior: a framework to improve diagnostics and tailor therapeutic interventions. Frontiers in Psychology, 14. https://doi.org/10.3389/fpsyg.2023.993090
7. Fisher, K. A., Hany, M., & Torrico, T. J. (2024, February 29). Antisocial Personality Disorder. National Library of Medicine; StatPearls Publishing. https://www.ncbi.nlm.nih.gov/books/NBK546673/
8. Hay, D. F., Paine, A. L., Perra, O., Cook, K. V., Hashmi, S., Robinson, C., Kairis, V., & Slade, R. (2021). Prosocial and Aggressive Behavior: A Longitudinal Study. Monographs of the Society for Research in Child Development, 86(2), 7–103. https://doi.org/10.1111/mono.12427
9. Hochberg, Z., & Konner, M. (2020). Emerging Adulthood, a Pre-adult Life-History Stage. Frontiers in Endocrinology, 10(918), 1–12. https://doi.org/10.3389/fendo.2019.00918
10. Im, S. (2018). Gender Differences in Aggression-related Responses on EEG and ECG. Experimental Neurobiology, 27(6), 526–538. https://doi.org/10.5607/en.2018.27.6.526
11. Impelen, A. van , Merckelbach, H., Niesten, I. J. M., Jelicic, M., Huhnt, B., & Campo, J. á. (2016). Biased Symptom Reporting and Antisocial Behaviour in Forensic Samples: A Weak Link. Psychiatry, Psychology, and Law, 24(4), 530–548. https://doi.org/10.1080/13218719.2016.1256017
12. Ling, S., Umbach, R., & Raine, A. (2019). Biological Explanations of Criminal Behavior. Psychology, Crime & Law, 25(6), 1–15. https://doi.org/10.1080/1068316X.2019.1572753
13. Marzilli, E., Cerniglia, L., & Cimino, S. (2021). Antisocial Personality Problems in Emerging Adulthood: The Role of Family Functioning, Impulsivity, and Empathy. Brain Sciences, 11(6), e687. https://doi.org/10.3390/brainsci11060687
14. Mazza, M., Lisci, F. M., Marzo, E. M., De Masi, V., Abate, F., & Marano, G. (2025). Why Do They Do It? The Psychology Behind Antisocial Behavior in Children and Adolescents. Pediatric Reports, 17(2), e26. https://doi.org/10.3390/pediatric17020026
15. Monahan, K. C., Steinberg, L., Cauffman, E., & Mulvey, E. P. (2009). Trajectories of antisocial behavior and psychosocial maturity from adolescence to young adulthood. Developmental Psychology, 45(6), 1654–1668. https://doi.org/10.1037/a0015862
16. Nordin, T., Degerstedt, F., & Granholm Valmari, E. (2024). A Scoping Review of Masculinity Norms and Their Interplay With Loneliness and Social Connectedness Among Men in Western Societies. American Journal of Men's Health, 18(6). https://doi.org/10.1177/15579883241304585
17. Pietromonaco, P. R., & Collins, N. L. (2017). Interpersonal mechanisms linking close relationships to health. American Psychologist, 72(6), 531–542. https://doi.org/10.1037/amp0000129
18. Sharma, N., & Gupta, V. (2024). Human Behavior In A Social Environment. In www.ncbi.nlm.nih.gov. StatPearls Publishing. https://www.ncbi.nlm.nih.gov/books/NBK574501/
19. Shepherd, J. (2003). The impact of antisocial lifestyle on health. BMJ, 326(7394), 834–835. https://doi.org/10.1136/bmj.326.7394.834
20. Shin-Yee Wong, R. (2023). Psychopathology of antisocial personality disorder: from the structural, functional and biochemical perspectives. The Egyptian Journal of Neurology, Psychiatry and Neurosurgery, 59(1), e113. https://doi.org/10.1186/s41983-023-00717-4
21. Skowroński, B. (2022). Introduction and validation of the Antisocial Beliefs Scale in a sample of Polish prisoners. Frontiers in Psychology, 13, e991687. https://doi.org/10.3389/fpsyg.2022.991687
22. Wesseldijk, L. W., Bartels, M., Vink, J. M., van Beijsterveldt, C. E. M., Ligthart, L., Boomsma, D. I., & Middeldorp, C. M. (2017). Genetic and environmental influences on conduct and antisocial personality problems in childhood, adolescence, and adulthood. European Child & Adolescent Psychiatry, 27(9), 1123–1132. https://doi.org/10.1007/s00787-017-1014-y
23. Zeng, X., Lu, M., & Chen, M. (2021). The relationship between family intimacy and relapse tendency among people who use drugs: a moderated mediation model. Substance Abuse Treatment, Prevention, and Policy, 16(1), e48. https://doi.org/10.1186/s13011-021-00386-7