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THE RELATIONSHIP BETWEEN PSYCHOLOGICAL DISTRESS, AND CRIMINAL THINKING AMONG UNIVERSITY STUDENTS

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Abstract

Background: University students often face significant psychological distress due to academic, social, and financial stressors. Emerging literature suggests that such distress may be linked to maladaptive cognitive patterns, including criminal thinking. However, little is known about how this relationship manifests in low- and middle-income countries, particularly among university student populations in Pakistan. Objective: This study aimed to examine the relationship between psychological distress and criminal thinking among university students in Karachi, Pakistan. Method: A cross-sectional, correlation design was employed. Data were collected from 261 university students using convenience sampling technique. Psychological distress was measured using the Kessler Psychological Distress Scale (K10), and criminal thinking was assessed via the Texas Christian University Criminal Thinking Scales (TCU CTS-3). Data were analyzed using SPSS, descriptive statistic and Pearson correlation test were applied. Results: Statistically significant positive correlation between psychological distress and criminal thinking was found which is ($r = 0.307$, $p < 0.01$), suggesting that higher distress levels are associated with more pronounced criminal cognitive patterns. Conclusion: The findings highlight the psychological vulnerability of university students and the potential cognitive risks linked to unresolved distress. Targeted interventions that address both emotional well-being and maladaptive cognition are recommended, for students.

Keywords: Psychological Distress, Criminal Thinking, University Students, Pakistan

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INTRODUCTION

Psychological distress, a multidimensional construct encompassing anxiety, depression, and emotional turmoil, significantly impacts the cognitive and behavioral functioning of individuals (Kessler et al., 2002). Among university students, this phenomenon is particularly prevalent due to heightened academic demands, career-related uncertainty, familial expectations, and psychosocial transitions (Bayram et al., 2008; Auerbach et al., 2018). In Pakistan, the challenge is amplified by an under-resourced mental health system and limited institutional support within universities. A cross-sectional study by (Muneer et al., 2025) involving 1,177 university students in Punjab reported depression is 52.8%, anxiety is 40.5% and stress 44.8% . The study highlighted higher prevalence among female students and a significant association between social media use and mental health issues.

The absence of accessible support systems in academic environments can give rise to maladaptive coping strategies, one of which may be the development of distorted thinking patterns associated with antisocial or criminal behaviors. Criminal thinking refers to cognitive distortions that rationalize, justify, or support deviant and unlawful behaviors. These cognitive schemas include justification, entitlement, grandiosity, power orientation, and response disinhibition, all of which serve to neutralize guilt and facilitate antisocial behavior (Sease et al., 2022). Traditionally examined within incarcerated populations, recent evidence suggests that these patterns also exist among community and non-clinical samples, particularly in adolescents and university-aged individuals experiencing elevated stress levels (Palmer et al., 2000).

Theoretical frameworks such as Agnew's General Strain Theory support this association, suggesting that psychological strain or distress may lead to deviant cognitive responses when positive coping strategies are absent (Agnew et al., 1992). Individuals experiencing emotional strain often resort to rationalizations and cognitive distortions as psychological defenses to manage internal discomfort (Bonta et al., 2017). In such cases, criminal thinking does not emerge from criminal intent, but as a maladaptive cognitive coping mechanism in response to environmental and psychological stressors.

A recent study by (Shah et al., 2023) surveyed 460 university students in Pakistan and found that 42% reported moderate to severe anxiety, 38% experienced depressive symptoms, and 31% suffered from chronic stress. Another study has indicated that psychological distress is very common among adolescents in Chitral 74 % suffer from depression, 73% from anxiety and 80% suffer from stress (Zaman., et al 2025).The study linked these issues to academic pressure, financial insecurity, career uncertainty, and low mental health literacy, highlighting the urgent need for targeted interventions within universities.

Cultural stigma surrounding mental illness further discourages help-seeking, making students vulnerable to internalized stress and maladaptive coping mechanisms (Naeem et al., 2022). Research indicated significant negative correlation between psychological distress and problem-focused coping and significant positive correlation with avoidant coping as well as emotional-focused coping (Zaman., et al 2025). Moreover, the university environment, which demands high performance and social integration, often becomes a source of chronic psychological burden for many students in the country. These factors contribute to feelings of inferiority, alienation, and increased academic pressure (Irfan et al., 2016). For instance, a study by (Shah et al., 2023) examined mental health factors among Pakistani university students and found that rural-origin students reported significantly higher levels of stress and anxiety compared to their urban counterparts. These psychosocial differences were linked to challenges in academic performance and could influence cognitive structures related to deviance and criminal thinking.

Supporting this, (Khan et al., 2006) reported that among medical students in Karachi, 70% experienced anxiety, 34% had depressive symptoms, and 44% exhibited both. These high rates of psychological distress were significantly linked to academic stress, pressure to perform,

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and lack of support services factors that can also contribute to emotional deregulation and response disinhibition, which are commonly associated with criminal thinking patterns. Similar patterns of adaptation have been observed in other contexts. For example, (Ahmed et al., 2021) explored coping strategies among medical professionals facing role conflict and found that individuals often employed cognitive reframing, moral positioning, and systemic attribution to manage feelings of inadequacy and marginalization. Although focused on healthcare workers, these coping mechanisms parallel those seen among rural-origin university students, who may similarly use cognitive justifications such as attributing academic struggles to systemic biases or asserting cultural or moral superiority to navigate the pressures of urban academic environments. Such cognitive tendencies align with the sub domains of grandiosity and justification as defined in criminal thinking models (Walters et al., 2023).

Despite the rising concern, psychological assessment in Pakistani universities remains limited, particularly in relation to cognitive outcomes such as criminal thinking. Most university counseling centers focus on immediate emotional support without screening for deeper cognitive distortions that may signify long-term behavioral risks. Furthermore, criminal thinking is often misunderstood as a construct relevant only to legal offenders, overlooking its potential emergence in high-stress academic settings as a form of maladaptive thinking.

South Asian scholarship also supports this trajectory. For example, (Srivastava et al., 2024) in India observed that students from marginalized regions exhibited higher instances of cognitive dissonance and anger-justification schemas when placed in elite urban institutions. Similar findings were observed in Bangladesh, where (Hossain et al., 2019) reported that university students exhibited heightened levels of anxiety and a propensity for external blame attribution. These behaviors are associated with power orientation and justification tendencies, serving as coping strategies to manage perceived social inferiority within urban academic environments.

The lack of intersectional research on geographical background, psychological distress, and cognitive-behavioral tendencies in South Asian countries has created a gap in mental health prevention and early intervention strategies. In the absence of longitudinal monitoring, students exhibiting early signs of cognitive distortion may go unnoticed, potentially leading to behavioral deviance, academic misconduct, or aggression. Similar maladaptive patterns of cognition have been identified in institutional settings. For instance, (Arif et al., 2022) highlighted how the lack of trained mental health staff in Pakistani prisons contributed to unaddressed psychological distress and maladaptive coping behaviors, underscoring the systemic gaps in mental health infrastructure (Arif et al., 2022).

In response to this research gap, the current study aims to explore the relationship between psychological distress and criminal thinking among university students in Karachi, Pakistan. It contributes to the emerging literature on non-clinical criminal thinking by contextualizing it within Pakistan's higher education system.

We hypothesize that:

1. Psychological distress will be positively associated with criminal thinking among university students.

METHODOLOGY

Research Design: This study employed a corelational survey-based research design

Setting: Participants of this study were students from four different Universities of Karachi. Karachi is the largest city of Pakistan with a large number of private and public universities. In those universities, a large number of students study in various levels ranging from undergraduate to post graduate and PhD levels. Those students come from different backgrounds and cultures. In this study we have tried to discover whether there is any relationship between psychological distress and criminal thinking among the students of universities.

Sampling: A total sample of 261 students was selected through convenience sampling technique.

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INCLUSION CRITERIA

- Regular students of the four selected universities in Karachi.
- Able to communicate in English language.
- Having age between 18 and 32.
- Willing to give consent for the study.

EXCLUSION CRITERIA

- Having age less than18 years or more than 32
- Having severe mental illness or on being Psychiatric medication
- Those who were unwilling to give consent

MEASUREMENT

Informed Consent: Participants' consent was taken through the informed consent form. The purpose of the study, introduction of the researcher and other relevant details was highlighted in the form of the study. They were asked to sign the consent form to express their willingness for participation.

Demographic Form: A demographic form was employed to gather participant identification information, such as age, gender, education level, Socio-economic status, urban and rural background.

Kessler Psychological distress(K-10): The psychological distress was assess by Kessler Psychological Distress Scale K-10 (Kessler et al., 2002). This scale has 10 items assessing symptoms experienced by a person for last 4 weeks. Each Items of this scale were scored by using a 5-point Likert scale ranging from 1 (none of the time) to 5 (all the time). This scale provides score from 10 to 50 where high score indicate higher level of psychological distress. Scale provides a total score ranging from 10 to 50, where higher scores indicate a higher level of general psychological distress.

Criminal Thinking Scale (TCU CTS-3): The 36-item Criminal Thinking Scale (TCU CTS-3) was utilized to evaluate criminal thinking across six dimensions, as rated by participants. These dimensions include sensitivity to the impact of crime, response disinhibition, justification, power orientation, grandiosity, and social desirability (Sease et al., 2022). Responses to the scale are measured using a 5-point Likert-type scale (1 = strongly disagree, 2 = disagree, 3 = uncertain, 4 = agree, 5 = strongly agree). Scores for each dimension are calculated as follows (with no more than half of the items for any dimension left unanswered):1.Sum the response values of all non-missing items for each dimension.2.Divide the total by the number of included items to obtain an average.3.Multiply this average by 10 to scale the score from 10 to 50 (e.g., an average response of "2.6" translates to a score of "26").For this study, with the author's consent, the following subscales will be applied: 1. Response Disinhibition Scale (RD) with 7 items, 2. Power Orientation Scale (PO) with 5 items, and 3. Grandiosity Scale (GR) with 5 items. Additionally, with the author's agreement and in accordance with the study's requirements, item 7 of the Grandiosity Scale has been modified to read, "You should not be held responsible for your behavior."

Procedure: After approval of the study proposal, the data collection from the participants was initiated. During university hours, participants were contacted and given a consent form along with participant information sheet to explain the purpose of the study. The researcher was available to help participants with any difficulties they faced.

ETHICAL CONSIDERATION

This study was conducted after approval of Board of Advanced Studies and Research (BASR), University of Karachi. Additionally, approval from the universities for data collection was secured from the relevant authorities. After receiving these permissions, data collection commenced. Informed consent was obtained from the participants, ensuring that their

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information would remain confidential and used solely for research purposes. They were also assured that they could withdraw from the study at any time without any consequences. Participants were given an overview of the study's nature and objectives, and were guaranteed that all information would be kept confidential. No deceptive practices were employed to gather information, and all participants were treated equally. They were informed that the study's results might be published for scientific purposes, but their identities would remain undisclosed. To further protect confidentiality, pseudonyms were used to prevent identification of the participants.

Statistical Analysis: Data from the measures were recorded using a scoring manual and tabulated in a spreadsheet using SPSS version 21. Descriptive statistics and Pearson correlation were performed for data analysis.

RESULTS

DEMOGRAPHICS CHARACTERISTIC OF PARTICIPANTS

Gender	**N = 261**	**%**
Male	167	64.0
Female	94	36.0
Age category		
18 to 22 years	151	57.9
23 to 27 years	94	36.0
28 to 32 years	16	6.1
Marital Status		
Single	245	93.9
Married	16	6.1
Family Status		
Joint	149	57.1
Nuclear	112	42.9
Education Level		
Under graduate	176	67.4
Master	77	29.5
Phil/PhD	8	3.1
Job Status		
Un-employed	171	65.5
Part Time Employed	70	26.8
Full Time Employed	20	7.7
Economics Status		
Low	28	10.7
Middle	219	83.9
High	14	5.4
Background		
Urban	161	61.7
Rural	100	38.3
Use of Psych. Medicines		
No	261	100.0
Addiction to Substance		
No	261	100.0
Use of Nicotine		
Cigarette	62	23.8

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Snuff	5	1.9
Chaliya	15	5.7
Gutka	6	2.3
Any other	4	1.5
N/A	169	64.8

Table 1 outlines the demographic profile of the study's participants. The total sample comprised 261 university students, with 64% (n = 167) identifying as male and 36% (n = 94) as female. Participants were categorized into three age groups: the majority, 57.9% (n = 151), were aged 18 to 22 years; 36% (n = 94) fell within the 23 to 27 years range; and the smallest group, 6.1% (n = 16), were aged 28 to 32 years. In terms of marital status, an overwhelming 93.9% (n = 245) of the respondents reported being single, indicating that most participants were unmarried at the time of data collection. Married individuals constituted only 6.1% (16) of the participants. Family status of the participants 57.1% (149) of participants belonged to joint family, while 42.9% (112) belonged to nuclear family's system. The education level of the study participants, the majority of participants had an undergraduate degree study (67.4% or 176 individuals), followed by those with a master's degree (29.5% or 77 individuals).A small percentage of participants held an MPhil/PhD degree (3.1% or 8 individuals). Job status of the participants, 65.5% (171) of participants were unemployed they have no job, while 26.8% (70) were employed part-time, and according to the study finding 7.7% (20) were employed full-time. Economic status of the participants, 10.7% (28) of participants had a low economic status, 83.9% (219) had a middle economic status, and 5.4% (14) had a high economic status. According to the background of the participants, study show that 61.7% (161) of the university student had an urban background, while 38.3% (100) had a rural background university student.According to the study result participants (100%) reported not using any psychotropic medicines or having an addiction to substances like cannabis or alcohol. According to the study result participants use different types of nicotine. Among the participants the use of cigarettes is high which make 23.8% (62). While smaller percentages reported using other forms of nicotine such as snuff (naswaar) use only by (1.9% or 5 individuals. Chaliya (5.7% or 15 individuals), Gutka (2.3% or 6 individuals), or some other form of nicotine (1.5% or 4 individuals) that show that 4 participants use any other types of nicotine like electric cigarettes. According to the study demographic 64.8% (169) of participants did not use any kind nicotine.

PEARSON CORRELATION BETWEEN PSYCHOLOGICAL DISTRESS AND CRIMINAL THINKING

Psychological Distress	Criminal Thinking
Pearson Correlation	.307**
Sig. (2-tailed)	.000
N	261

** Correlation is significant at the 0.01 level (2-tailed).

The table 2 presents the results of a correlation analysis between Psychological Distress and Criminal Thinking. The Pearson correlation coefficient is 0.307, indicating a moderate positive correlation between Psychological Distress and Criminal Thinking.

DISCUSSION

This study investigated the association between psychological distress and criminal thinking among university students in Karachi. The analysis identified a moderate, statistically significant positive correlation between psychological distress and criminal thinking ($r = 0.307$, $p < 0.01$). This correlation implies that as psychological distress intensifies, there is a corresponding rise in criminal thinking tendencies. The significance level ($p = 0.000$, 2-tailed) confirms the robustness of this finding, suggesting the relationship is not due to random chance. The analysis was based on a sample size of 261 participants. These findings highlight a consistent pattern: students

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reporting higher levels of distress are more likely to exhibit criminal thinking patterns. However, it's important to note that correlation does not establish causality, and other underlying factors might be contributing to this relationship. This finding suggests that students experiencing higher levels of psychological distress are more likely to exhibit distorted thinking patterns associated with criminal cognition.

These findings are consistent with prior studies demonstrating that psychological distress, particularly in the form of unresolved anxiety, depression, or stress, may give rise to maladaptive cognitive responses including rationalization, denial, and justification core features of criminal thinking (Huang et al., 2023). Such distortions are typically studied in forensic settings, but their presence in non-clinical university populations is increasingly acknowledged (Bonta et al., 2017; Palmer et al., 2000).

The significant correlation observed in this study supports the General Strain Theory (Agnew et al., 1992), which posits that individuals under chronic stress are more likely to develop deviant thoughts and behaviors in the absence of positive coping mechanisms. Furthermore, from a Cognitive Behavioral Therapy (CBT) lens, psychological distress can distort core beliefs, leading individuals to over generalize, personalize, or catastrophizepatterns also reflected in criminal thinking sub domains such as justification and grandiosity (Beck, 1976). Parallel mechanisms have been observed in clinical and non-clinical settings in Pakistan. Moreover, (Arif et al., 2022) demonstrated that limited mental health awareness among institutional staff resulted in mismanagement of distress and cognitive dissonance. Similarly, social support has been found to buffer against depression and improve life quality in diabetic patients, a finding that may extend to distressed student populations (Arif et al., 2022).

Additionally, Social Learning Theory (Bandura, 1977) suggests that students in distress may learn and reinforce maladaptive thought patterns through peer environments, modeling behavior as a form of coping. For instance, (Khan et al., 2006) observed that medical students in Karachi reported high levels of psychological distress, with 70% experiencing anxiety and 34% showing signs of depression.

IMPLICATIONS FOR POLICY AND PRACTICE

The findings hold significant implications for mental health policy in higher education, especially within Pakistan and similar low- and middle-income contexts. University counseling services where they exist of ten address emotional distress but do not routinely screen for cognitive distortions such as criminal thinking. This oversight may lead to missed opportunities for early intervention.

There is an urgent need for institutions to expand the scope of student mental health services to include psycho education, cognitive screening, and skills-based interventions targeting maladaptive thought patterns. Culturally sensitive workshops and peer-support initiatives could particularly benefit students from rural backgrounds who may feel alienated in urban academic settings. Policy-level engagement from the Higher Education Commission (HEC) and institutional leaders is essential for building sustainable, equity-oriented mental health infrastructure in universities. Informed by previous research on occupational burnout and aggression in police officers, these interventions must also consider the role of chronic stressors in shaping behavioral outcomes (Arif et al., 2025). Cognitive distortions such as power orientation and response disinhibition have also been noted among young adults engaging in digital aggression, suggesting shared psychological mechanisms (Zahra et al., 2025).

LIMITATIONS

Several limitations should be acknowledged. First, the cross-sectional nature of the study restricts causal interpretations. While a relationship was found between psychological distress and criminal thinking, longitudinal designs would be better suited to examining the directionality of this association. Second, the reliance on self-reported data may introduce bias, including social

desirability and underreporting, especially for items related to deviant cognition. Moreover, the study was limited to universities in Karachi, which may affect generalizability of this study.

FUTURE RESEARCH DIRECTIONS

Future studies should adopt longitudinal and mixed-methods approaches to explore how psychological distress and criminal thinking develop over time, and whether early intervention can prevent the escalation of maladaptive cognition. Including students from diverse provinces and varying institutional types (e.g., private vs. public universities) could provide a more representative understanding of the problem.

Additionally, future research should investigate the mediating role of coping strategies or moderating effects of peer and family support. It would also be beneficial to explore intervention-based research to evaluate the effectiveness of CBT-informed psycho educational programs in reducing both distress and cognitive distortions among university students.

CONCLUSION

This study contributes to a growing body of evidence linking psychological distress with maladaptive cognitive patterns such as criminal thinking among university students. The findings underscore the psychological vulnerability of students and highlight the need for comprehensive, culturally sensitive mental health strategies in academic institutions across Pakistan. Addressing both emotional symptoms and cognitive risks can help promote a more supportive and psychologically safe educational environment.

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CONTRIBUTIONS

All authors contributed equally throughout the study period.

COMPETING INTERESTS

The authors declare no financial or non-financial conflicts of interest.

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