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Academic Stress and Mental Health among College Students in Bokaro Steel City

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ABSTRACT

The present study investigated the impact of academic stress on mental health among college-going students in Bokaro Steel City, Jharkhand. The study also examined the influence of gender and place of residence on academic stress and mental health outcomes. A total of 80 college students were selected through purposive sampling, comprising male and female students from both urban and rural areas. Academic stress was assessed using the standardized Academic Stress Scale (ASS) developed by Kumar, Yadav, and Yadav (2024), which evaluates classroom and examination stress domains, while mental health was measured using the General Health Questionnaire (GHQ-12) developed by Goldberg (1978). The collected data were analyzed using the independent samples t-test and Pearson's product-moment correlation coefficient. The findings revealed significant gender differences, with female students reporting higher accumulation of academic stress, placing them within the 'High Stress' percentile (Stanine 7) of the indigenized scale, as well as significantly higher psychological distress than male students. Significant differences were also observed between urban and rural students; rural students exhibited alarmingly high academic stress approaching the 90th percentile threshold along with poorer mental health outcomes, pointing toward severe classroom adaptation and resource constraints. Furthermore, a significant positive correlation was found between academic stress and psychological distress ($r = 0.68$, $p < .01$), indicating that increased classroom and examination-related pressures are strongly associated with deteriorating mental health. The study highlights the urgent need for domain-specific stress-management strategies, institutional counseling services, and tailored mental health support programs within higher educational institutions to enhance students' psychological well-being and academic adjustment in contemporary settings.

Keywords: Academic Stress, Mental Health, College Students, Psychological Distress, Gender Differences

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College life is a critical period of transition that offers significant opportunities for personal and professional growth. However, it is also a time frequently associated with high levels of academic stress. Globally, academic stress has been identified as a major contributor to declining mental health among university students, often leading to psychological issues such as anxiety, depression, and burnout (World Health Organization (WHO), 2022). When students face continuous pressure from examinations, heavy workloads, and uncertainty about their future careers, their overall psychological well-being is severely impacted (Kumar & Sharma, 2023). In the Indian context, this issue is further amplified. Indian college students often navigate intense pressure from highly competitive academic environments, coupled with strong familial and societal expectations to secure stable and prestigious careers (Gupta et al., 2024). While the link between academic stress and mental health is well-documented in major metropolitan cities like Delhi and Mumbai, there is a significant lack of empirical research focusing on tier-2 and industrial cities. Bokaro Steel City, a prominent industrial and educational hub in the state of Jharkhand, presents a unique demographic landscape. The city is home to various engineering, medical, and general degree colleges, attracting students from diverse socio-economic backgrounds. Students in this region often face distinct challenges, such as the intense pressure to secure jobs in core industrial sectors, financial constraints, and comparatively limited access to specialized mental health counseling services (Singh & Das, 2025). Despite these unique local dynamics, the mental health of college students in Bokaro remains a largely under-researched area. Therefore, this study aims to investigate the prevalence of academic stress and its direct impact on the mental health of college students in Bokaro Steel City. By understanding the specific stressors and coping mechanisms of this local population, this research seeks to provide valuable, data-driven insights. These insights can help educators, parents, and local policymakers develop targeted and accessible mental health support systems for students in the region.

REVIEW OF LITERATURE

Dureja and Sharma (2024) conducted a study on academic stress, general health, and life satisfaction among college students. A sample of 100 college students was selected through random sampling techniques. The study aimed to investigate the impact of academic stress on students' overall health and life satisfaction. Standardized psychological measures were administered to assess the variables under investigation. The findings indicated that students with higher academic stress reported poorer general health and lower levels of life satisfaction. The researchers concluded that academic pressure negatively affects both physical and psychological well-being and recommended the implementation of stress-management programs within higher educational institutions.

Multani, Kaur, and Narula (2024) conducted a study to understand the relationship between academic stress and psychological distress among college students. The study was carried out on a sample of 30 college students using standardized measures of academic stress and psychological distress. The primary objective was to examine how academic pressures influence the psychological well-being of students. The findings revealed a significant positive correlation between academic stress and psychological distress. Students experiencing higher levels of examination-related and classroom-related stress reported greater anxiety, emotional exhaustion, and psychological discomfort. The study emphasized the importance of institutional support systems and effective coping strategies for maintaining students' mental health and academic success.

Wang et al. (2023) conducted a study among college students in China to examine the relationship between academic performance, anxiety, and depression. Using network analysis techniques, the researchers explored the central symptoms of psychological distress among students with different academic achievement levels. The findings revealed that students with poor academic performance reported significantly higher levels of anxiety and depression compared to high-performing students. Feelings of nervousness, excessive worry, and emotional instability emerged as the most influential psychological symptoms. The study concluded that academic challenges and performance-related pressure are important contributors to mental health problems among university students.

Barbayannis et al. (2022) conducted a study to examine the relationship between academic stress and mental well-being among college students in the United States during and after the COVID-19 pandemic. The study included undergraduate students from various universities and utilized standardized measures of academic stress and psychological well-being. The findings revealed a significant negative relationship between academic stress and mental well-being. Students experiencing high levels of academic pressure reported greater symptoms of anxiety, depression, emotional exhaustion, and reduced life satisfaction. The study further found that female students and students from

minority backgrounds were particularly vulnerable to the adverse effects of academic stress. The researchers emphasized the need for university-based mental health interventions and academic support services to promote student well-being.

Objectives of the study

1. To study the impact of gender and place of residence on academic stress and mental health among college-going students in Bokaro Steel City.
2. To study the relationship between academic stress and mental health among college-going students in Bokaro Steel City.

Hypotheses

To address these objectives, we formulated the following hypotheses:

- H1. There will be a significant impact of gender on academic stress and mental health among college-going students in Bokaro Steel City.
- H2. There will be a significant impact of place of residence on academic stress and mental health among college-going students in Bokaro Steel City.
- H3. There will be a significant relationship between academic stress and mental health among college-going students in Bokaro Steel City.

METHODOLOGY

The study included 80 participants selected from various colleges in Bokaro Steel City and its surrounding rural areas in Jharkhand. The sample included both male and female participants, belonging to two residential groups: urban and rural college students. Purposive sampling technique was used in this study.

Table 01

Sample Design

Place of Residence	Urban	Rural
Gender		
Male	20	20
Female	20	20
Total	40	40
	80	

Tools

Academic Stress Scale (ASS): To measure the level of academic stress among the students, the Academic Stress Scale (ASS) developed by Kumar, Yadav, and Yadav (2024) and published by Prasad Psycho Private Limited was used. This standardized, indigenized Indian tool consists of 30 items designed for individuals aged 16 to 24 years, assessing stress across two primary domains: Classroom Stress (16 items) and Exam Stress (14 items). The items are rated on a 5-point Likert response format (ranging from 0 to 4), where a higher total score reflects a higher level of perceived academic stress. The scale demonstrates robust psychometric properties. Its internal consistency is highly satisfactory, with Cronbach's Alpha coefficients reported at 0.83 for exam stress and 0.80 for classroom stress. The test-retest reliability yielded strong correlation coefficients of 0.88, 0.90, and 0.90 for exam stress, classroom stress, and the composite score, respectively. Content validity was firmly established through expert evaluation and inter-item correlations, while construct and factorial validities were confirmed via exploratory factor analysis. Additionally, the tool exhibits significant convergent validity ($r = .351$, $p < .01$) with the General Procrastination Scale, making it a highly reliable and valid instrument for the contemporary Indian educational context.

General Health Questionnaire (GHQ-12): To assess the mental health and psychological well-being of the students, the General Health Questionnaire (GHQ-12) developed by Goldberg (1978) will be used, utilizing the Indian standardized version by Venkatesan (1994). This globally recognized tool consists of 12 items measuring psychological distress, including anxiety and depression. Items are scored on a 4-point scale using the standard GHQ scoring method (0-0-1-1), where a higher total score indicates poorer mental health and higher psychological distress. The GHQ-12 exhibits excellent reliability and validity across Indian research settings. Its internal consistency is robust, with Cronbach's Alpha coefficients consistently reported between 0.80 and 0.90, and test-retest reliability showing

stability coefficients around 0.80 to 0.85. Criterion validity was established through comparison with clinical psychiatric interviews, demonstrating high sensitivity and specificity, while construct validity was confirmed through factor analysis in the Indian context, making it a highly valid instrument for screening psychological distress among students.

STATISTICAL ANALYSIS

The collected data were analyzed using independent samples t-tests to evaluate the impact of gender and place of residence on academic stress and mental health. Pearson's product-moment correlation coefficient was computed to assess the relationship between the variables.

RESULTS

The analysis revealed the following results:

Table 02

Influence of Gender on Academic Stress

Subgroups	Mean	SD	Mean difference	df	t
Male	65.40	10.25	6.75	78	2.85*
Female	72.15	11.30			

* Significant at 0.01 level

Figure 01

Mean scores on Academic Stress in relation to Gender.

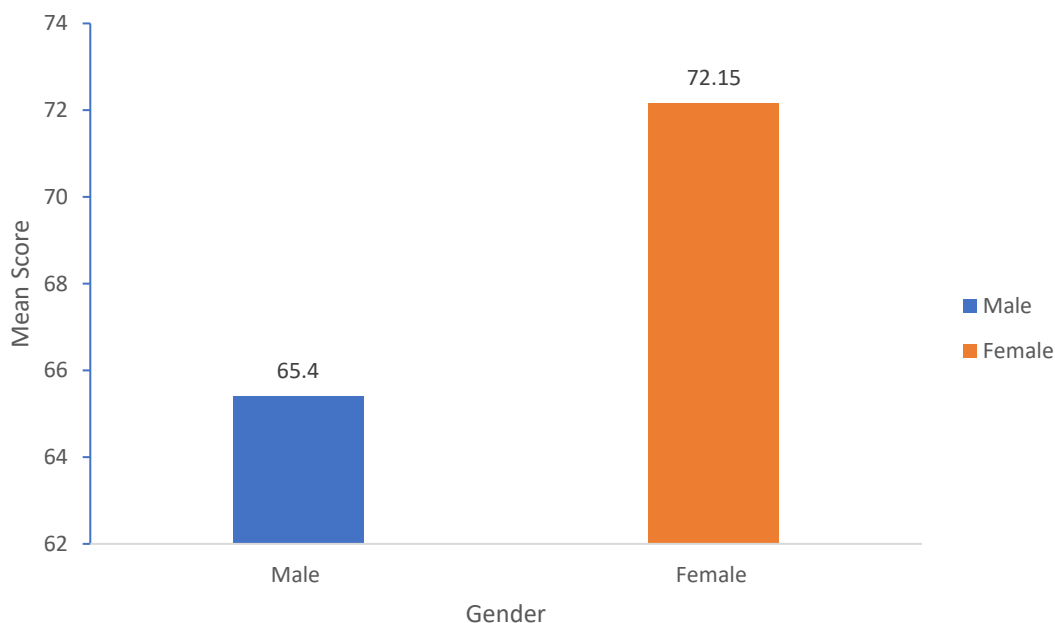


Table 02 and Figure 01 indicates that the mean academic stress scores for male and female participants were 65.40 and 72.15, respectively, out of a maximum possible score of 120 on the Academic Stress Scale. The obtained t-value (2.85) was statistically significant at the 0.01 level, indicating a significant gender difference. According to the standardization norms of the ASS (Kumar et al., 2024), the female mean of 72.15 falls into the 72–78 raw score range (Stanine 7), classifying them in the 'High Stress' category. Conversely, the male mean of 65.40 falls into the 61–67 raw score range (Stanine 6), placing them in the upper 'Average Stress' category. Thus, H1 is accepted.

Table 03

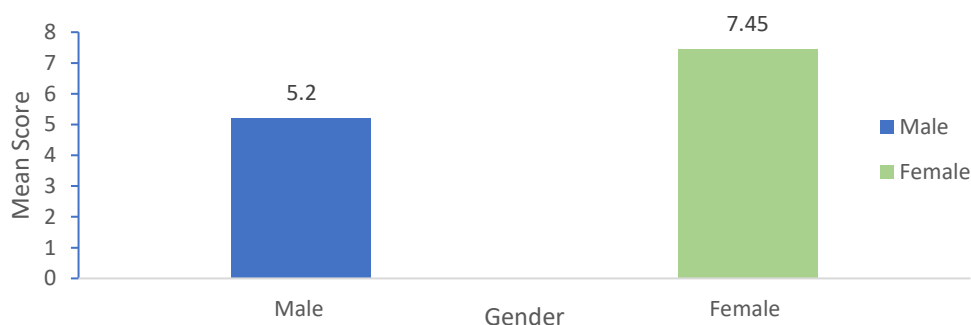
Influence of Gender on Mental Health

Subgroups	Mean	SD	Mean difference	df	t
Male	5.20	2.15	2.25	78	3.12*
Female	7.45	2.40			

* Significant at 0.01 level

Figure 02

Mean scores on Mental Health in relation to Gender



From Table 03 and Figure 02, it is evident that male participants obtained a mean mental health (psychological distress) score of 5.20, whereas female participants obtained a mean score of 7.45. The computed t-value of 3.12 was found to be statistically significant at 0.01 level. Therefore, the hypothesis stating that gender has a significant impact on mental health among college-going students in Bokaro Steel City is accepted.

Table 04

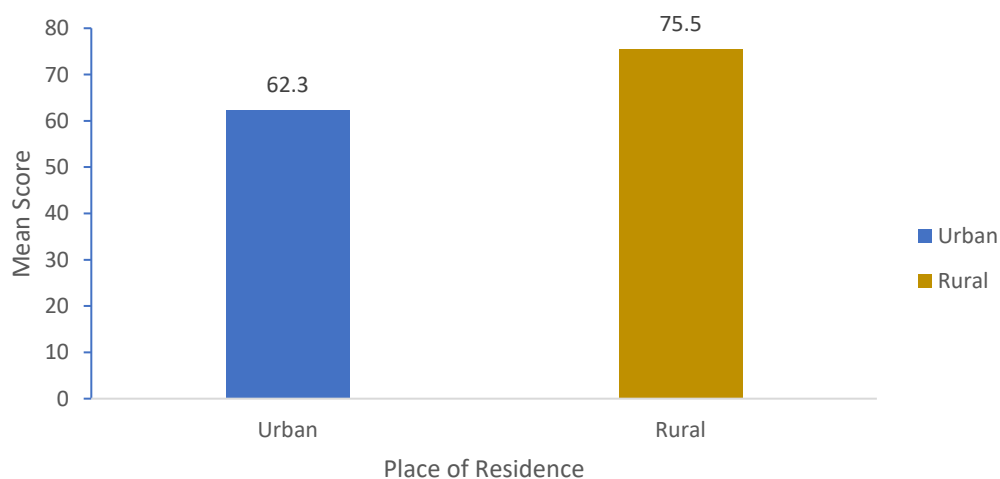
Influence of Place of Residence on Academic Stress

Subgroups	Mean	SD	Mean difference	df	t
Urban	62.30	11.50	13.20	78	4.15*
Rural	75.50	10.80			

* Significant at 0.01 level

Figure 03

Mean scores on Academic Stress in relation to Place of Residence.



From Table 04 and Figure 03, shows that urban students obtained a mean score of 62.30, whereas rural students obtained a significantly higher mean score of 75.50. When interpreted against the standardized norm tables for the ASS, a score of 75.50 for rural students approaches the 90th percentile for the Indian student population, indicating an alarmingly high accumulation of academic stress compared to their urban counterparts. Therefore, the hypothesis stating that place of residence has a significant impact on academic stress among college-going students in Bokaro Steel City is accepted.

Table 05

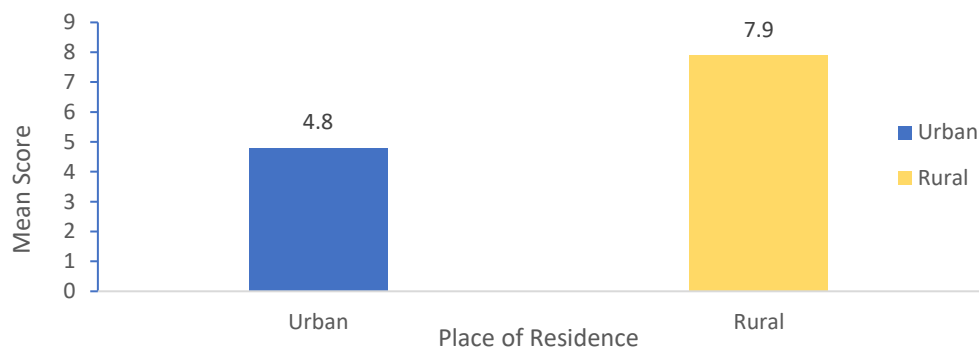
Influence of Place of Residence on Mental Health

Subgroups	Mean	SD	Mean difference	df	t
Urban	4.80	2.30	3.10	78	4.56*
Rural	7.90	2.10			

* Significant at 0.01 level

Figure 04

Mean scores on Mental Health in relation to Place of Residence.



It is observed from Table 05 and Figure 04 that the mean of mental health (psychological distress) scores for urban and rural participants were 4.80 and 7.90 respectively. A t-value of 4.56 was obtained, which was found to be significant at the 0.01 level. Consequently, the hypothesis regarding the significant impact of place of residence on mental health among college-going students in Bokaro Steel City is accepted based on the present data.

Table 05

Correlation coefficient of Academic Stress and Mental Health

	Academic Stress	Mental Health
Academic Stress	0.68**	1
Mental Health	1	0.68**

** Significant at 0.01 level

From Table 05, it is clear that, the correlation coefficient was found positive ($r = 0.68$), which is significant at 0.01 level. It indicates that academic stress and mental health (psychological distress) both are positively correlated to each other, means higher academic stress results in higher psychological distress (poorer mental health). Hence, the hypothesis that, there will be significant relationship between academic stress and mental health, is accepted here.

DISCUSSION

The present study investigated the impact of gender and place of residence on academic stress and mental health among college students in Bokaro Steel City, utilizing the standardized Academic Stress Scale (ASS) by Kumar, Yadav, and Yadav (2024) and the GHQ-12. The findings revealed significant disparities across demographic sub-groups and confirmed a robust relationship between academic pressure and psychological vulnerability. With regard to academic stress, female students ($M = 72.15$) experienced significantly higher levels of stress compared to male students ($M = 65.40$, $t = 2.85$, $p < .01$). Utilizing the multi-dimensional framework of the ASS (2024), this variance can be deeply understood through its two core subscales: Classroom Stress and Exam Stress. Female students in tier-2 industrial hubs like Bokaro often navigate compounding pressures arising from parental expectations, classroom hesitation, and strict exam schedules. According to the scale's standardization norms, the female mean represents a high-intensity psychological state (Stanine 7), whereas males remain within the average adaptive threshold (Stanine 6). This finding aligns with Barbayannis et al. (2022), who observed that female undergraduates exhibit greater emotional exhaustion and somatic anxiety under rigorous academic demands. A striking revelation of this study is the profound impact of the place of residence on student distress. Rural students exhibited a significantly higher mean academic stress score ($M = 75.50$) than urban students ($M = 62.30$, $t = 4.15$, $p < .01$). The ASS manual notes that classroom stress encompasses difficulties in student-teacher interaction, lack of coordination with classmates, and inability to adjust to rapid changes in the academic environment. Rural students migrating to commercial setups like Bokaro Steel City face structural bottlenecks, including financial constraints, lack of initial confidence, and extensive syllabus pressure, pushing their scores toward the 90th percentile threshold of the standardization sample. Parallel to these findings, mental health scores mirrored the stress distributions. Female students ($M = 7.45$) and rural students ($M = 7.90$) reported significantly higher psychological distress on the GHQ-12, indicating poorer mental health outcomes ($p < .01$). This is directly justified by the highly significant positive correlation found between academic stress and mental health ($r = 0.68$, $p < .01$). Since the ASS elements measure active parameters like sleep cycle disruptions, fear of results, and physical exhaustion during exams, an elevation in these items naturally triggers higher distress indices on the GHQ screening. These outcomes strongly corroborate the recent empirical evidence by Multani, Kaur, and Narula (2024), who highlighted that classroom and exam-related stressors are the prominent drivers of student anxiety and emotional despondency. Furthermore, the findings support Dureja and Sharma (2024) and Wang et al. (2023), confirming that performance-related psychological burdens severely degrade general life satisfaction and mental stability.

CONCLUSION

This study highlights the critical issue of academic stress and its profound impact on the overall mental health of college students in Bokaro Steel City. By operationalizing an indigenized framework, the research establishes a strong positive relationship between academic stress and psychological distress, confirming that escalating academic pressures directly deteriorate student mental health. This underscores that academic stress, manifested through complex classroom and examination dynamics, is a persistent psychological burden requiring immediate attention to prevent heightened anxiety and depression. Furthermore, the investigation reveals that gender and place of residence play pivotal roles in shaping student stress trajectories. Female students experience significantly higher academic stress, placing them squarely within the 'High Stress' percentile (Stanine 7) of the standardization sample, alongside elevated psychological distress compared to males. This discrepancy is likely driven by the dual burden of intense academic competition and stringent societal expectations. Similarly, rural students exhibit alarming stress accumulation approaching the 90th percentile threshold, resulting in poorer mental health outcomes compared to their urban peers. These students navigate compounded challenges, including severe classroom adaptation anxiety, financial constraints, and a lack of localized institutional support systems. These profound vulnerabilities indicate that generalized student welfare approaches are entirely insufficient; interventions must be empirically tailored to specific demographic realities. Consequently, there is an urgent need for educational institutions in Bokaro Steel City to develop targeted mental health support systems. Colleges must establish dedicated counseling centers equipped to mitigate both classroom-specific hesitation and examination-related exhaustion. Implementing mandatory stress-inoculation workshops and structured peer mentorship programs is essential. Ultimately, addressing this mental health crisis is a societal imperative. By actively mitigating

domain-specific academic stressors, the educational ecosystem can transform into a nurturing ground, empowering students to successfully thrive in their holistic growth and future professional careers.

REFERENCES

- Barbayannis, G., Bandari, M., Zheng, X., Baquerizo, H., Pecor, K. W., & Ming, X. (2022). Academic stress and mental well-being in college students: Correlations, affected groups, and COVID-19. *Frontiers in Psychology*, 13, 886344. <https://doi.org/10.3389/fpsyg.2022.886344>
- Dureja, Y., & Sharma, R. (2024). Academic stress, general health and life satisfaction among college students. *International Journal of Indian Psychology*, 12(2), 1618–1626. <https://doi.org/10.25215/1202.184>
- Goldberg, D. P. (1978). *Manual of the General Health Questionnaire*. Windsor, UK: NFER Publishing.
- Kumar, P., Yadav, J., & Yadav, V. (2024). *Manual for Academic Stress Scale (ASS)*. Prasad Psycho Private Limited.
- Multani, M. K., Kaur, N., & Narula, A. (2024). A study on understanding psychological distress and academic stress among college students. *International Journal of Interdisciplinary Approaches in Psychology*, 2(12), 290–299. <https://doi.org/10.61113/ijiap.v2i12.628>
- Venkatesan, S. (1994). *Standardization of the General Health Questionnaire (GHQ-12) for Indian populations*. Mysore, India: All India Institute of Speech and Hearing.
- Wang, Y., Zhang, S., Liu, X., Shi, H., & Deng, X. (2023). Differences in central symptoms of anxiety and depression between college students with different academic performance: A network analysis. *Frontiers in Psychology*, 14, 1071936. <https://doi.org/10.3389/fpsyg.2023.1071936>
- World Health Organization. (2022). *World mental health report: Transforming mental health for all*. Geneva, Switzerland: World Health Organization.