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Gender-Based Mental Health Comparison of Rural and Urban Students at Cluster University of Jammu, J&K, India

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ABSTRACT

This study investigates the influence of gender and locality on mental health outcomes among students at Cluster University of Jammu. Utilizing a quantitative approach, data was collected from 200 undergraduate and postgraduate students across five constituent colleges. The Mental Health Inventory was employed to measure six dimensions of mental health. Results from Two-Way ANOVA indicated no significant differences based on gender or locality, and no significant interaction effect was observed. These findings underscore the need for targeted mental health interventions and support services within the university setting.

Keywords: Mental Health, Students, Gender Differences, Rural vs. Urban, Cluster University of Jammu, Quantitative Study, Two-Way ANOVA.

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1. INTRODUCTION

Mental health issues among university students are increasingly recognized as a significant concern affecting academic performance, personal well-being, and future prospects (Eisenberg *et al.*, 2013). The transition from secondary to higher education introduces new challenges and stressors that can impact students' mental well-being differently based on demographic factors such as gender and locality. Cluster University of Jammu, situated in the culturally diverse region of Jammu and Kashmir, caters to a student population from various rural and urban backgrounds. Understanding how these demographic variables influence mental health outcomes is crucial for developing targeted interventions and support systems within the university context. This study aims to explore whether there are significant differences in mental health among students based on gender (male and female), locality (rural and urban), and their interaction effect at Cluster University of Jammu. By addressing these research questions, this study seeks to contribute empirical evidence that can inform policies and initiatives aimed at promoting mental health and well-being among university students.

The article is organized as follows. Section 2 provides a detailed literature review. The objective of the study is presented in Section 3. The hypothesis of the study is covered in Section 4, and the delimitations of the study are discussed in Section 5. The research methodology is outlined in Section 6. Educational Implications and Suggestions were discussed in Section 7. Finally, the conclusion is drawn in Section 8.

2. LITERATURE REVIEW

Mental health among university students has become a critical area of concern globally due to its profound impact on academic performance, personal well-being, and societal contributions. This review synthesizes findings from various studies to explore the prevalence, correlates, and implications of mental health issues among students. Several studies have highlighted the prevalence of psychological distress among university students. For instance, Adlaf *et al.*, (2001) found elevated levels of psychological distress in Canadian undergraduates, underscoring the widespread nature of this issue. Similarly, Bayram and Bilgel (2008) identified high rates of depression, anxiety, and stress among university students, with socio-demographic factors influencing these mental health challenges.

The transition to university life is a critical period that significantly impacts students' mental health. Studies by Conley *et al.*, (2014) and Eisenberg *et al.*, (2013) examined the psychological functioning and distress levels during this transition. They highlighted developmental trajectories, gender differences, and social well-being as pivotal factors affecting students' adjustment and mental health outcomes. Moreover, emerging adulthood, as proposed by Arnett (2000), represents a distinct life stage characterized by identity exploration and instability, which can influence mental health trajectories. Arnett, Zukauskiene, and Sugimura (2014) expanded on this concept, emphasizing the implications of emerging adulthood for mental health outcomes among young adults aged 18-29.

Self-control has emerged as a significant factor influencing mental health outcomes. Achtziger and Bayer (2013) demonstrated that self-control mediates the relationship between perfectionism and stress, highlighting its role in managing psychological well-being. Similarly, Koc *et al.*, (2023) explored the serial mediating roles of fear of missing out and social media addiction in the relationship between self-control and distress among emerging adults. The educational environment also plays a crucial role in shaping students' mental health. Hung *et al.*, (2024) examined the effects of online health promotion programs on healthcare students, suggesting feasibility in improving their health and well-being. Brooke and Margo (2017) conducted a scoping review on student resilience in health professional education, emphasizing resilience-building strategies to mitigate the impact of stressors. Cultural and regional differences further influence mental health outcomes. Studies like Jaisoorya *et al.* (2017) and Reddy (2023) explored psychological distress among college students in Kerala, India, highlighting prevalence rates and correlates such as socio-cultural factors and perceived well-being.

3. OBJECTIVES OF THE STUDY

The primary objectives of this study were to investigate the mental health disparities among students at Cluster University of Jammu, with a focus on gender and locality. Specifically, the study aimed to identify significant differences in mental health between male and female students. Additionally, it sought to compare the mental health statuses of students from rural and urban areas. Lastly, the study explored the interaction between gender and locality to determine if there are compounded effects on the mental health of these students.

4. HYPOTHESES OF THE STUDY

The hypotheses formulated for this study are as follows:

- There will be no significant difference in the mental health of students of Cluster University of Jammu based on gender (male and female).
- There will be no significant difference in the mental health of students of Cluster University of Jammu based on locality (rural and urban).
- There will be no significant interaction effect of gender (male and female) and locality (rural and urban) on the mental health of students of Cluster University of Jammu.

5. DELIMITATIONS OF THE STUDY

The delimitations of this study are defined by specific boundaries and limitations set by the researchers. The study was restricted to a sample of 200 students to maintain a manageable scope and ensure in-depth analysis. It focused exclusively on male and female participants to examine gender-based differences without the complexity of additional gender identities. Only undergraduate (UG) and postgraduate (PG) students were included to ensure a comparable educational context. The research was conducted across five constituent colleges of Cluster University of Jammu, chosen to represent a diverse academic environment within the university. Finally, the study was confined to the Jammu district to maintain geographic consistency and relevance to the local context.

6. RESEARCH METHODOLOGY

Quantitative Research Design: This study employed a quantitative research methodology to explore mental health differences in relation to gender and locality among students at Cluster University of Jammu. The research aimed to provide statistical insights into how these factors influence mental health.

Sampling Method: The sample consisted of 200 students drawn from five constituent colleges of Cluster University of Jammu, including both undergraduate (UG) and postgraduate (PG) students. A simple random sampling technique was employed to ensure that the sample was representative of the broader student population, thus enhancing the validity of the findings.

Selection of Tool: The data collection utilized the Mental Health Inventory (MHI), a standardized tool developed by Jagdish and Srivastava (1983).

Description of Tool: The Mental Health Inventory (MHI) comprises 56 items that assess mental health across six dimensions:

- **Positive Self-Evaluation:** Includes items such as 1*, 7*, 23*, 27*, 32, 33, 45, 51, 54.
- **Realistic Perception:** Includes items such as 5, 8, 24*, 25*, 35*, 41, 46*, 49.
- **Integration of Personality:** Includes items such as 2*, 9*, 12, 15*, 18*, 20, 28*, 36*, 40, 42, 44, 53.
- **Autonomy:** Includes items such as 3*, 10*, 14*, 38, 47*, 48*.
- **Group-Oriented Attitudes:** Includes items such as 4, 11, 19, 21*, 26, 30*, 39, 43, 50, 55*.
- **Environmental Competence:** Includes items such as 6, 16*, 17*, 22*, 29, 31, 34, 37, 52, 56.

*Items marked with * are false-keyed, meaning their scoring is reversed.*

Scoring Procedure: Each item on the MHI is rated on a four-point scale: Always (4 points), Most of the time (3 points), Sometimes (2 points), and Never (1 point). True-keyed (positive) statements are scored directly, while false-keyed (negative) statements are reverse-scored to maintain consistency.

Statistical Analysis: To analyze the data, raw scores were systematically organized into a data sheet, and class intervals were established for each group. The primary statistical technique used was Analysis of Variance (2x2 Factorial Design), which assessed mean differences in mental health based on gender and locality. This method allowed for examining the main effects of each factor, as well as their interaction effects on mental health outcomes.

Table 1, presents the summary of the two-way ANOVA for a 2x2 factorial design, showing the sources of variance (gender, locality, and their interaction), sum of squares, degrees of freedom, mean squares (MS), F ratios, and levels of significance. The results indicate that the effects of gender, locality, and their interaction on mental health among students at Cluster University of Jammu are statistically insignificant.

Table 1. Summary of Two-Way ANOVA for Mental Health Differences Based on Gender and Locality.

Sources of Variance	Sum of Squares	Degree of Freedom	MS=SS/df	F Ratio	Level of Significance
A (Gender)	10	1	10	.0001	Insignificant
B (Locality)	115.6	1	115.6	0.017	Insignificant
A×B	19.6	1	19.6	0.002	Insignificant
Within	6570.8	36	182.52		

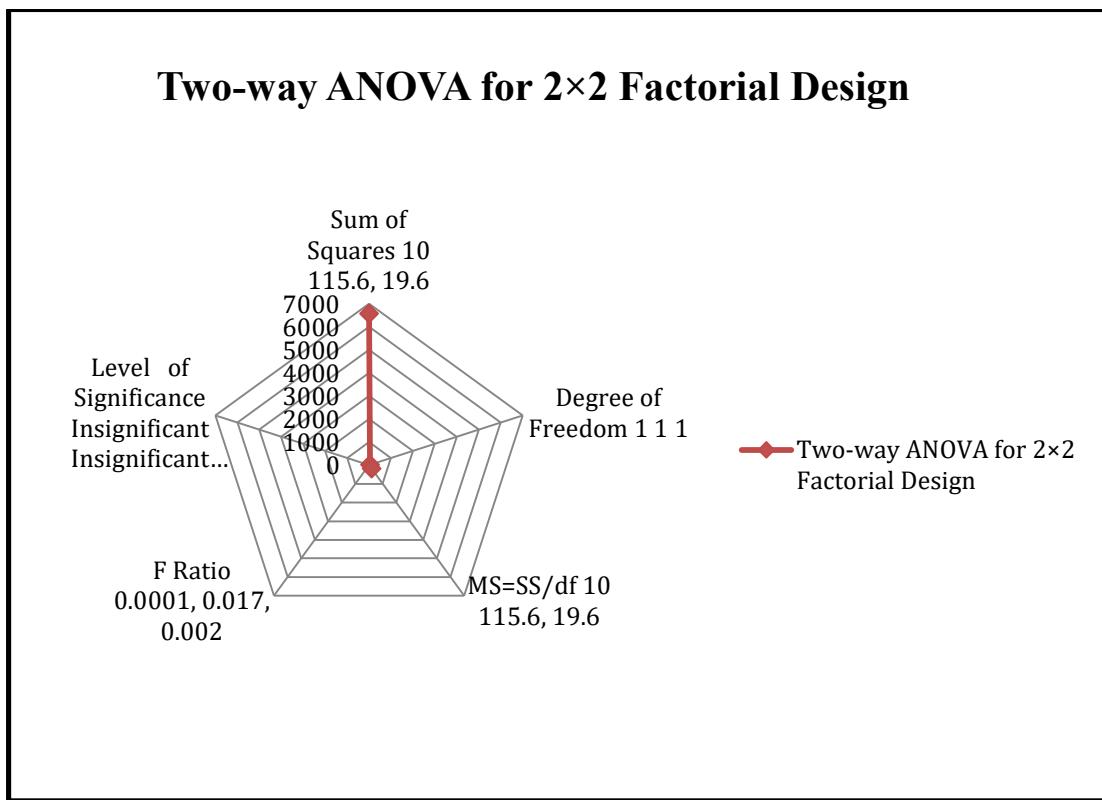


Figure 1. Summary of Two-Way ANOVA for Mental Health Differences among Students Based on Gender and Locality.

Figure 1, illustrates the results of a two-way ANOVA, showing the sum of squares, mean squares, F ratios, and levels of significance for the main effects of gender (A), locality (B), and their interaction ($A \times B$) on mental health among students at Cluster University of Jammu. The analysis indicates no significant differences in mental health based on gender, locality, or their interaction.

Figure 1, visualizing the results of the two-way ANOVA highlights the following key points:

- **Gender (A):** The sum of squares for gender is 10, with a mean square (MS) of 10. The F ratio is 0.0001, indicating no significant difference in mental health based on gender.
- **Locality (B):** The sum of squares for locality is 115.6, with a mean square (MS) of 115.6. The F ratio is 0.017, suggesting no significant difference in mental health based on locality.
- **Interaction ($A \times B$):** The interaction between gender and locality has a sum of squares of 19.6, with a mean square (MS) of 19.6. The F ratio is 0.002, indicating no significant interaction effect between gender and locality on mental health.
- **Within Groups:** The within-group variance is 6570.8, with a mean square (MS) of 182.52.

The graph clearly shows that neither gender nor locality, nor their interaction, has a significant effect on the mental health of the students. The F ratios for all sources of variance are very low, and their corresponding levels of significance indicate that these factors do not contribute significantly to the differences in mental health outcomes among the students.

Findings: The F-ratio for variable A (Gender i.e., male and female) is 0.0001, and the table values for significance are 4.11 and 7.40 at 0.01 and 0.05 levels, respectively. This indicates an insignificant difference in the mental health of students from different genders (male and female) at the constituent colleges of Cluster University of Jammu. Hence, there is no statistically significant difference in mental health based on gender among the students. The F-ratio for variable B (Locality i.e., urban and rural) is 0.017, and the table values for significance are 4.11 and 7.40 at 0.01 and 0.05 levels, respectively. This suggests that the variable B (Locality) is insignificant, indicating no significant difference in the mental health of students from different localities (rural and urban) at Cluster University of Jammu.

The F-ratio for the interaction ($A \times B$) i.e., Gender (male and female) and Locality (rural and urban) is 0.002, and the table values for significance are 4.11 and 7.40 at 0.01 and 0.05 levels, respectively. This indicates an insignificant interaction effect of gender (male and female) and locality (rural and urban) on mental health among the students of Cluster University of Jammu. Therefore, gender and locality do not interact significantly to affect mental health in this context.

Educational Implications and Suggestions: This study holds several educational implications for promoting mental health and well-being among university students:

- **Enhanced Support Services:** Universities should prioritize mental health initiatives that provide comprehensive support and resources to all students, irrespective of gender or locality.

- **Counseling and Guidance:** Regular counseling sessions and guidance programs should be accessible to students to address their mental health concerns and facilitate personal development.
- **Awareness and Education:** Educational programs and awareness campaigns should be conducted to destigmatize mental health issues and promote a positive campus environment.
- **Future Research Directions:** Further research should explore additional variables influencing mental health outcomes and expand the scope to include students from diverse socio-economic backgrounds and academic disciplines.

8. CONCLUSION

This study explored the influence of gender and locality on mental health outcomes among students at Cluster University of Jammu. The findings revealed no significant differences based on gender or locality, nor was there a significant interaction effect between these variables. These results suggest that mental health challenges among university students at Cluster University of Jammu are consistent across genders and localities. The implications of these findings are crucial for university administrations and policymakers aiming to enhance mental health support systems. By recognizing the universality of mental health issues among students, regardless of demographic characteristics, universities can implement holistic strategies that promote well-being and academic success. Future research should continue to explore other potential factors influencing mental health outcomes and evaluate the effectiveness of interventions tailored to the diverse needs of university students.

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