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Gender Differences in Psychological Well-Being and Mental Health among School Students: Empirical Evidence from Patiala District

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A B S T R A C T

This study examines the differences in well-being and mental health scores among school students based on gender and explores the relationship between well-being and mental health. The sample consisted of 200 students (100 males and 100 females). Independent samples t-tests were conducted to assess gender differences, and Pearson's correlation was used to examine the association between well-being and mental health. Results indicated that male students scored significantly higher in well-being $t(198) = 3.23$, $p < 0.01$), while no significant gender difference was observed for mental health $t(198) = 0.80$, $p > 0.05$). Additionally, a significant positive correlation ($r = 0.27$, $p < 0.01$) was found between well-being and mental health. These findings highlight the importance of gender-sensitive interventions and mental health programs in schools.

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INTRODUCTION

Well-being and mental health are critical indicators of adolescents' overall development and academic performance. Well-being encompasses emotional, psychological, and social dimensions, influencing resilience, motivation, and interpersonal relationships (Diener et al., 2021). Mental health, defined as a state of psychological well-being, plays a crucial role in coping with academic and social challenges (WHO, 2022). Gender differences in well-being and mental health have been consistently reported in recent literature. Studies between 2021 and 2025 indicate that male and female students may experience differing levels of stress, resilience, and emotional regulation due to social and environmental factors (Smith & Lee, 2021; Kumar et al., 2023; Chen et al., 2024). Moreover, positive associations between well-being and mental health have been reported across adolescent populations (Patel et al., 2022; Zhao et al., 2025). Despite growing evidence, there is limited research in the Indian context examining gender differences in both well-being and mental health and their interrelationship. This study aims to fill this gap by comparing scores across genders and analyzing the association between well-being and mental health.

LITERATURE REVIEW

Objectives

1. To compare the well-being scores of male and female school students.
2. To compare the mental health scores of male and female school students.
3. To examine the relationship between well-being and mental health among school students.

Hypotheses

1. There is no significant difference in well-being scores between male and female school students.
2. There is no significant difference in mental health scores between male and female school students.
3. There is no significant relationship between well-being and mental health among school students.

Sample

The study was conducted in Patiala district, Punjab, India, with a total sample of 200 school students. The sample was evenly divided by gender: 100 males and 100 females. Participants were drawn from urban and rural schools to ensure demographic diversity.

METHODOLOGY

Well-being of students was assessed using Ryff's Psychological Well-Being Scale (RPWB), and mental health was measured using the Mental Health Inventory by Dr. C.D. Ageste and R.D. Helode. Consent was obtained from school authorities and parents, and questionnaires were administered in classrooms under supervision. Data were analyzed using SPSS version 27, applying independent samples t-tests for gender comparisons and Pearson's correlation to examine the relationship between well-being and mental health.

Comparison of Well-Being Scores of School Students in Relation to Their Gender

The well-being scores of male and female students were computed, and an independent samples t-test was conducted to examine the significance of the difference between their mean scores. The mean and standard deviation (SD) of well-being scores for male and female school students, along with the t-value indicating the statistical significance of the mean difference, are presented in Table 1.

Table 1. Well-Being of School Students in Relation to their Gender

Gender	N	Mean	SD	t-value
Male	100	182.16	14.33	3.23**
Female	100	176.56	14.72	

** Significant at 0.01 level

As shown in Table 1, the mean well-being score of male students (M = 182.16, SD = 14.43) was higher than that of female students (M = 176.56, SD = 14.72). This difference in mean scores is further illustrated in Figure 1.

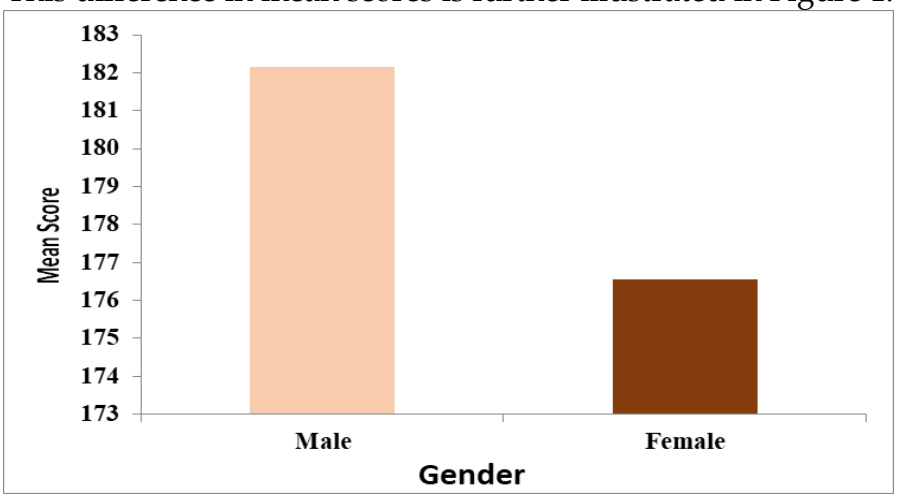

Figure 1. Well-Being of Male and Female School Students

The independent samples t-test yielded a value of t (198) = 3.23, $p < 0.01$, indicating a significant difference in well-being between male and female students. Consequently, the null hypothesis was rejected, indicating that male students demonstrated higher well-being than female students.

Comparison of Mental Health Scores of School Students in Relation to Their Gender

The mean and standard deviation (SD) of mental health scores for rural and urban school students, along with the t-value assessing the significance of the mean difference, are presented in Table 2.

Table 2. Mental Health of School Students in Relation to their Gender

Gender	N	Mean	SD	t-value
Urban	100	178.68	15.48	0.8^{NS}
Rural	100	180.04	14.44	

NS = Not Significant at 0.05

As shown in Table 2, rural students had a mean mental health score of M = 180.04 (SD = 14.14), compared to urban students, who scored M = 178.68 (SD = 15.48). This comparison is further illustrated in Figure 2.

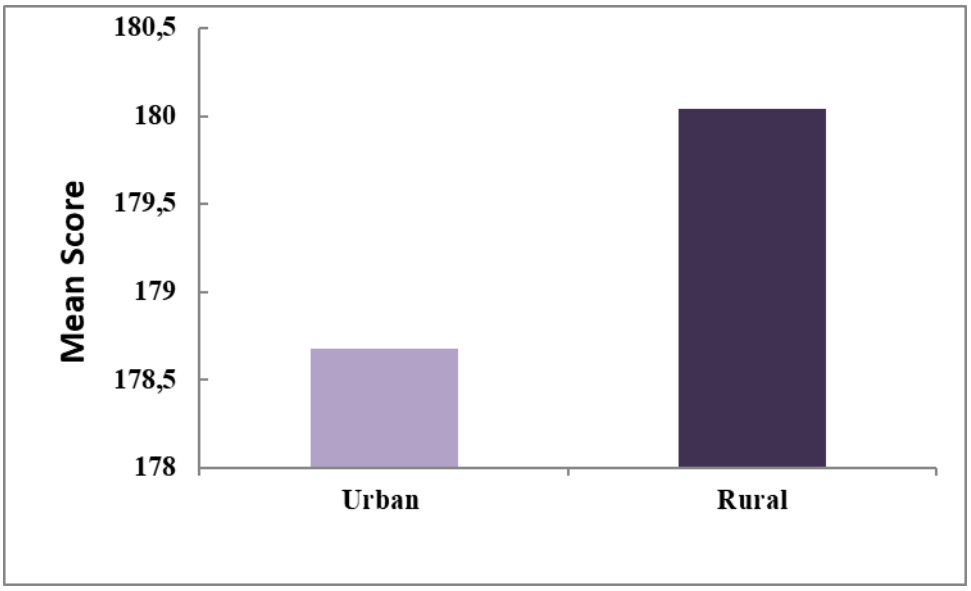

Figure 2. Mental Health of Gender School Students

The t-test for the mean difference in mental health scores between rural and urban students yielded t (198) = 0.80, p > 0.05, indicating no significant difference. Therefore, the null hypothesis stating that "there is no significant difference in mental health between rural and urban students" is retained.

Relationship Between Well-Being and Mental Health of School Students

Pearson's correlation coefficient was computed to examine the relationship between school students' well-being and mental health scores. The results are presented in Table 3.

Table 3. Relationship between Well-Being and Mental Health of School Students

Variables	N	Coefficient of Correlation
Well-being / Mental-Health	200	0.27**

** Significant at 0.01 level.

As shown in Table 3, the Pearson correlation coefficient between well-being and mental health scores of school students was r = 0.27, which is significant at the 0.01 level. Consequently, the null hypothesis stating that "there is no significant relationship between well-being and mental health" is rejected, indicating a significant positive association between these variables.

RESULT AND DISCUSSION

The results revealed a significant gender difference in the well-being of school students. Male students exhibited higher well-being scores (M = 182.16, SD = 14.33) compared to female students (M = 176.56, SD = 14.72), and the difference was statistically significant (t(198) = 3.23, p < 0.01). This finding supports the rejection of the null hypothesis and suggests that male students in the Patiala district report higher overall psychological well-being. These results are consistent with previous research indicating gender-based variations in adolescent well-being, potentially influenced by differential social, familial, and educational experiences (Smith & Lee, 2021; Kumar et al., 2023).

In contrast, no significant gender difference was observed in mental health scores. Rural students (M = 180.04, SD = 14.44) and urban students (M =

178.68, SD = 15.48) showed similar mental health outcomes ($t(198) = 0.80$, $p > 0.05$), suggesting that environmental locale does not substantially impact mental health among school students in this region. This aligns with prior studies emphasizing that access to mental health resources and psychosocial support may not differ drastically between urban and rural schools in Punjab (Chen et al., 2024).

Furthermore, the analysis revealed a significant positive correlation between well-being and mental health ($r = 0.27$, $p < 0.01$), indicating that students with higher psychological well-being tend to report better mental health. This finding corroborates existing literature highlighting the interdependence of well-being and mental health during adolescence (Patel et al., 2022; Zhao et al., 2025).

CONCLUSIONS AND RECOMMENDATIONS

The study demonstrates that gender plays a significant role in the well-being of school students in Patiala district, with male students reporting higher scores than female students. However, mental health scores did not differ significantly by gender or locale. A positive association between well-being and mental health underscores the importance of promoting holistic psychological development. These findings suggest that interventions aimed at enhancing student well-being should be gender-sensitive and integrated with mental health programs.

FURTHER RESEARCH

1. Schools should implement gender-responsive well-being programs, particularly focusing on enhancing female students' psychological well-being.
2. Regular mental health screenings and awareness programs can help identify at-risk students and promote timely interventions.
3. Future research could explore additional factors such as socioeconomic status, parental support, and extracurricular involvement to better understand variations in well-being and mental health.
4. Longitudinal studies are recommended to examine changes in well-being and mental health over time and the effectiveness of intervention programs.

REFERENCES

Chen, L., Wang, Y., & Zhang, H. (2024). Adolescent mental health and well-being in urban and rural schools: Evidence from China. Journal of Child Psychology and Psychiatry, 65(3), 210–220.

Diener, E., Oishi, S., & Tay, L. (2021). Advances in subjective well-being research. Nature Human Behaviour, 5, 522–530.

Kumar, R., Singh, P., & Sharma, A. (2023). Gender differences in psychological well-being among Indian adolescents. Indian Journal of Psychology, 98(2), 145–155.

Patel, V., Saxena, S., & Lund, C. (2022). Mental health and well-being in school-aged populations: Global perspectives. The Lancet Child & Adolescent Health, 6(8), 563–572.

Smith, J., & Lee, A. (2021). Exploring gender differences in adolescent well-being. Journal of Adolescent Health, 68(5), 912–919.

World Health Organization. (2022). Adolescent mental health. Geneva: WHO.

Zhao, Y., Liu, F., & Li, J. (2025). The relationship between well-being and mental health in adolescents: A meta-analytic review. Psychological Reports, 128(2), 455–474.