

Examining the Effect of Mental Health on the Academic Achievement of Higher Secondary School Students in Odisha

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Abstract-- Mental health is an important part of students' educational lives because it can influence how they think, feel, concentrate and respond to the demands of school. The present study examined mental health and academic achievement among higher secondary school students in Odisha. It also considered whether boys and girls differed in these two areas and whether mental health was associated with academic achievement. A descriptive survey method was used for the study. The sample consisted of 100 Class XI students, including 50 boys and 50 girls, selected from four higher secondary schools in Sukinda Block of Jajpur District, Odisha. Students' mental health was assessed with the Mental Health Scale developed by Dr. Sushma Talesara and Dr. Akhtar Bano, while academic achievement was determined from examination performance. The data were analysed using mean, standard deviation, independent-samples t-test and Pearson's correlation coefficient. The analysis showed a statistically significant difference between boys and girls in mental health, with girls obtaining the higher mean score. However, the difference in academic achievement between the two groups was not significant. The relationship between mental health and academic achievement was also not statistically significant ($r = 0.058$). The findings suggest that academic performance cannot be understood through mental health alone. Students' achievement may depend on several interacting personal, family, social and educational factors. At the same time, attention to students' emotional well-being remains important for creating a supportive educational environment.

Keywords-- Mental health, academic achievement, higher secondary students, gender, adolescents, Odisha

I. INTRODUCTION

Higher secondary education is a significant stage in a student's educational journey. Students at this level are generally preparing for examinations while also making decisions about higher education, career choices and their future. Because of these expectations, this period can bring considerable academic pressure. Along with academic demands, adolescents may experience changes in their emotions, relationships, confidence and responsibilities. These experiences make mental health an important issue within education.

A student may have the ability to perform well academically but may find it difficult to concentrate or participate fully in learning when experiencing emotional difficulties. In the same way, a student who feels confident, secure and supported may be better able to face everyday academic challenges. Mental health, therefore, should not be understood simply as the absence of mental illness. It also includes a person's emotional and psychological well-being and the ability to cope with ordinary challenges. The World Health Organization has emphasized this broader understanding of mental health.

Research has also drawn attention to the connection between students' psychological experiences and their educational lives. Walker et al. (2010) examined school-based health centres and academic outcomes and reported changes in academic performance among students receiving health-related services. Breslau et al. (2009) highlighted attention problems as an important factor associated with lower school achievement. Nelson et al. (2004) reported lower academic performance among students experiencing emotional and behavioural difficulties. Similarly, Masi et al. (2001) observed that students exposed to greater psychosocial stress were more likely to perceive themselves as less academically competent.

Although previous research suggests that mental health and educational outcomes may be connected, the nature and strength of this relationship can differ from one group of students to another. The present study was undertaken among Class XI students in Sukinda Block of Jajpur District, Odisha. The study particularly examined gender differences in mental health and academic achievement and explored whether the two variables were statistically related.

II. STATEMENT OF THE PROBLEM

The problem selected for the present investigation was: "Study the impact of mental health on academic achievement of higher secondary school students of Odisha."

Research Questions

- Is there any difference in the mental health of boys and girls studying at the higher secondary level?
- Is there any difference in the academic achievement of boys and girls studying at the higher secondary level?
- Is there any relationship between mental health and academic achievement among higher secondary school students?

Objectives of the Study

- To examine the mental health of higher secondary school students in relation to gender.
- To examine the academic achievement of higher secondary school students in relation to gender.
- To determine the relationship between mental health and academic achievement among higher secondary school students.

Hypotheses

- There is no significant difference in mental health between higher secondary school boys and girls.
- There is no significant difference in academic achievement between higher secondary school boys and girls.
- There is no significant relationship between mental health and academic achievement among higher secondary school students.

III. METHODOLOGY

Research Method

The study followed a descriptive survey method. This method was considered suitable because the purpose was to examine the existing status of mental health and academic achievement among students and to compare boys and girls on these variables.

Population

The population of the study consisted of Class XI students studying in four higher secondary schools located in Sukinda Block of Jajpur District, Odisha.

Sample

A sample of 100 Class XI students was selected for the study. It included 50 boys and 50 girls. Students were selected from four higher secondary institutions through simple random sampling.

School	Girls	Boys
Mahagiri Govt. Higher Secondary School, Kuhika	21	21
Kapileswar Mahavidyalaya, Duburi	14	14
Sukinda Mahavidyalaya, Sukinda	10	10
Bharati Vihar Mahavidyalaya, Haripur	5	5
Total	50	50

Tools Used for Data Collection

Two main sources of data were used. Mental health was assessed through the standardized Mental Health Scale (MHS) developed by Dr. Sushma Talesara and Dr. Akhtar Bano. Academic achievement was measured from students' examination performance, using the average marks obtained in previous examinations.

Procedure of Data Collection

The researcher visited the selected institutions and obtained permission from the concerned principals. Before administering the Mental Health Scale, the purpose of the study and the instructions for completing the scale were explained to the students. They were encouraged to respond honestly and were given sufficient time. Information related to academic achievement was collected from the concerned teachers and school records with their cooperation.

Statistical Analysis

The collected data were organized and analysed using mean and standard deviation. Independent-samples t-tests were used to examine gender differences in mental health and academic achievement. Pearson's correlation coefficient was used to examine the relationship between mental health and academic achievement. The data were considered approximately normally distributed before the parametric analyses were conducted.

IV. FINDINGS AND INTERPRETATION

Gender Difference in Mental Health

Group	N	Mean	SD	t-value	Result
Boys	50	139.00	3.93	4.00	Significant
Girls	50	142.62	5.04		

The mean mental health score of the boys was 139.00, while the mean score of the girls was 142.62. The calculated t-value was 4.00, which was higher than the reported critical value of 1.98 at the 0.05 level. Therefore, the first null hypothesis was rejected. A statistically significant difference was found between boys and girls in mental health scores, with girls obtaining the higher mean score. The result shows a difference within the particular group studied; it does not by itself explain why that difference occurred.

Gender Difference in Academic Achievement

Group	N	Mean	SD	t-value	Result
Boys	50	71.60	12.15	0.46	Not significant
Girls	50	72.66	10.86		

The boys obtained a mean academic achievement score of 71.60, whereas the girls obtained a mean of 72.66. Although the girls' mean was slightly higher, the difference was very small. The calculated t-value of 0.46 was lower than the critical value of 1.98. Thus, the second null hypothesis was not rejected. The study did not find a statistically significant difference in academic achievement between boys and girls.

Relationship Between Mental Health and Academic Achievement

Pearson's correlation coefficient was calculated to examine whether mental health and academic achievement were related. The obtained correlation coefficient was $r = 0.058$. This value was very close to zero and was not statistically significant at the 0.05 level. Therefore, the third null hypothesis was retained. In this sample, the statistical analysis did not show a significant relationship between students' mental health scores and their academic achievement scores.

V. DISCUSSION

The first important finding was the significant difference in mental health scores between boys and girls. Girls in the present sample obtained a higher mean score than boys.

This finding may reflect differences in how students experience and respond to academic, social or emotional situations, but the present data do not provide enough evidence to identify a particular cause. It would therefore be inappropriate to attribute the difference to gender alone. Family relationships, peer support, school climate, coping practices and academic expectations may also contribute to students' experiences of mental health.

The second finding was that boys and girls did not differ significantly in academic achievement. Their mean scores were 71.60 and 72.66 respectively. The small difference suggests that, within the schools and sample included in this investigation, academic achievement was broadly similar across the two groups. However, the study did not directly measure factors such as study habits, motivation, family support or classroom experiences, so these factors cannot be ruled out.

The third and perhaps most important statistical finding was the absence of a significant relationship between mental health and academic achievement. The correlation coefficient of 0.058 indicates a relationship that was extremely weak and statistically non-significant in the present sample. This result should not be interpreted to mean that mental health has no value in students' lives or education. Rather, it indicates that the particular mental health measure and academic achievement measure used in this study did not show a significant direct association among these 100 students.

The difference between the present finding and results reported in some earlier studies may be related to differences in population, sample characteristics, measurement tools, educational settings and other contextual factors. Academic achievement is a complex outcome and may be influenced by many variables at the same time. Mental health may also influence learning indirectly through concentration, motivation, attendance, relationships or coping relationships that were not examined separately in the present study. The findings therefore support a cautious interpretation rather than a simple conclusion that mental health and academic achievement are unrelated in every educational setting.

Educational Implications

- Mental health deserves attention as part of students' overall development, even when a direct statistical relationship with examination marks is not found.
- Schools can create safe and supportive spaces where students can discuss academic pressure, emotional concerns and everyday difficulties without fear of judgement.

- Teachers can remain alert to noticeable changes in students' participation, confidence, behaviour or classroom engagement. Teachers are not expected to diagnose mental health conditions, but they can guide students towards appropriate support.
- Academic success should not be judged only through examination marks. Confidence, motivation, relationships and emotional well-being are also important dimensions of students' educational experience.
- Regular communication among teachers, parents and students can help schools respond more effectively to academic and personal challenges.
- School counselling, awareness activities and life-skills programmes may provide useful support for adolescents as they learn to manage pressure and make decisions about their future.

VI. LIMITATIONS OF THE STUDY

The findings should be understood in the context of the study's limitations. The sample consisted of only 100 Class XI students from four higher secondary schools in Sukinda Block of Jajpur District. Therefore, the results cannot automatically be generalized to all higher secondary students in Odisha. The study focused mainly on gender, mental health and academic achievement, while other potentially important variables such as socioeconomic background, family environment, study habits, motivation, parental support, school facilities and peer relationships were not statistically examined. In addition, the study used a cross-sectional survey design. Consequently, the findings do not establish a cause-and-effect relationship between mental health and academic achievement.

VII. SUGGESTIONS FOR FURTHER RESEARCH

- Future studies may include larger samples from several districts of Odisha and cover both rural and urban schools.
- Researchers may compare students from different socioeconomic backgrounds and educational settings.
- Longitudinal research could provide a clearer picture of changes in mental health and academic performance over time.
- Qualitative interviews and focus-group discussions could help explain students' experiences of stress, emotional difficulties and academic pressure.

- Further studies may examine parental support, teacher behaviour, peer relationships, study habits, academic motivation and school climate.
- Future research can also consider emerging adolescent concerns such as excessive screen use, social media, cyberbullying and other digital experiences.
- Intervention-based studies could examine whether counselling, mental-health awareness programmes and student-support activities improve students' well-being and educational experiences.

VIII. CONCLUSION

The present study examined mental health and academic achievement among 100 higher secondary school students in Sukinda Block of Jajpur District, Odisha. A significant difference was found between boys and girls in mental health, with girls recording the higher mean score. In contrast, no significant gender difference was found in academic achievement. The correlation between mental health and academic achievement was also not statistically significant, with $r = 0.058$.

The findings suggest that examination performance cannot be explained by students' mental health scores alone. Academic achievement is likely to be influenced by a combination of personal, family, social and educational conditions. At the same time, the absence of a significant correlation in this study should not lead schools to overlook students' emotional well-being. Mental health remains an important part of a healthy educational experience because students need emotional security, confidence and supportive relationships while dealing with the demands of adolescence and education. A balanced approach to education should therefore give attention to both academic development and students' overall well-being.

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