

# A Relationship Study between Mental Health and Academic Achievement of Students

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**Abstract** - Mental health is an essential component of a person's overall well-being, encompassing both psychological and physical aspects. Various factors, including family dynamics, social interactions, economic conditions, political influences, and educational experiences, play a crucial role in shaping an individual's mental health. These factors can create stress, potentially disrupting mental stability. In society, academic performance is often regarded as a key measure of an individual's abilities and potential. Strong mental health fosters motivation among students, leading to improved academic outcomes. This study aimed to examine whether there were significant differences in students' mental health and academic achievement based on gender, location, and type of school management. A descriptive survey method was employed, with a sample comprising school students from Kerala, India. Data was gathered using the Mental Health Inventory developed by Talesara and Bano (2011). The study's findings indicated significant differences in students' mental health concerning gender and location, while variations based on the type of school management were not significant. Similarly, academic achievement showed notable differences in relation to location and type of school management but not gender. Overall, a significant relationship was observed between mental health and academic performance in all cases.

**Keyword:** Mental Health, Academic achievement, School Students, Education, Adolescents.

## I. INTRODUCTION

The world is becoming increasingly competitive, making quality performance a crucial factor in personal success. Parents aspire for their children to reach the highest levels of academic excellence, which, in turn, places immense pressure on students, educators, schools, and the overall education system. It often seems that academic achievement is the central focus of education, despite the fact that other developmental outcomes are also essential. As a result, schools devote significant time and effort to enhancing students' academic performance. Mental health plays a vital role in a person's overall well-being, encompassing both psychological and physical aspects. Various factors such as family dynamics, social interactions, economic conditions, political influences, and educational experiences impact mental health. These influences can contribute to stress, which may disrupt mental stability. The field of mental health science continuously works to ensure individuals maintain a balanced mental state. Institutions and organizations aim to support individuals in achieving overall development, emphasizing the importance of mental health. Maintaining mental well-being is a fundamental aspect of an individual's life, and both the home and school environments play a significant role in this process. Since humans are social beings, family serves as the first foundation for mental growth, followed by education in schools. A nurturing, stress-free, and empathetic environment at home and school is essential for safeguarding a student's mental health. A well-adjusted individual with a healthy mindset can adapt to changing circumstances, develop self-discipline, and establish strong personal and social connections.

Mental health contributes to a well-balanced personality and enhances adaptability to new situations. Hadfield (2016) defines mental health as the complete and harmonious expression of an individual's innate and learned abilities, directed toward achieving a unified personal goal. In today's competitive society, high achievement is a universal aspiration. Modern expectations emphasize the importance of excelling in academics, making academic success a widely accepted measure of an individual's abilities. The present study focused on examining the relationship between mental health and academic performance among ninth-grade students. In society, academic achievement is often considered a key indicator of an individual's potential and capabilities. Good mental health fosters motivation, which in turn enhances students' academic performance. The term "academic" refers to matters related to education, while "achievement" denotes accomplishments attained through effort, skill, and perseverance. Therefore, academic achievement signifies the outcomes an individual attains over an academic year. Previous research supports the connection between mental health and academic success. Singh (2015) explored the mental health and academic performance of college students, revealing that male students exhibited better mental health than female students. Additionally, high achievers demonstrated stronger mental health compared to low achievers, and the study established a significant positive correlation between mental health and academic success.

Similarly, Zada et al. (2021) investigated the impact of mental health challenges on university students' academic performance in Pakistan. Their findings indicated that while some students effectively manage academic stress and maintain their performance, others struggle to cope, which negatively affects their academic outcomes. In severe cases, students may even withdraw from their studies before completing their degrees. The study further concluded that mental health issues adversely impact both the academic and

personal lives of students. Regarding gender differences in academic achievement, female students were found to perform better academically, whereas male students were more susceptible to mental health challenges. These studies emphasize the crucial role of mental health in academic performance, reinforcing the need for a supportive and balanced environment to help students thrive both academically and personally.

## II. RATIONALE OF THE STUDY

Mental health plays a crucial role in shaping an individual's well-rounded personality and balanced behavior, which is reflected in their ability to adjust to themselves, others, and their surroundings. It is regarded as a positive force that contributes to personal, social, and economic development. Adolescents with better mental health tend to adapt more effectively within their families, social circles, and school environments, leading to an overall improved quality of life. A person with a sound mental state remains resilient in the face of stress and challenges, demonstrating stability and determination. Psychological well-being can be seen as a state of emotional maturity, characterized by a steady and enduring disposition. It represents an individual's ability to function effectively in both personal and social aspects of life while experiencing a sense of fulfilment and satisfaction. A healthy mental state is further marked by positive emotions, self-acceptance, and harmonious relationships with others.

## III. PROBLEM STATEMENT

The connection between mental health and academic achievement is a vital area of research, as a student's psychological well-being significantly affects their ability to learn, focus, and perform academically. This study seeks to explore the impact of mental health challenges—such as stress, anxiety, and depression—on students' academic outcomes. Additionally, it aims to identify effective strategies that can help students maintain both mental well-being and academic success, ensuring a balanced and supportive learning environment.

## IV. OBJECTIVES

Considering the significance of the issue, the researcher established the following objectives:

- i. To examine whether there are significant differences in the mental health of school students based on gender, locale, and type of school management.
- ii. To analyze whether there are significant differences in the academic achievement of school students concerning gender, locale, and type of school management.
- iii. To explore the relationship between mental health and academic achievement among school students, taking into account the variables of gender, locale, and type of school management.

## V. SCOPE AND DELIMITATION

The scope of this study includes an assessment of students' mental health in relation to gender, locale, and type of school management and its impact on academic achievement. The study is specifically limited to school students and focuses on a sample of 50 boys and 50 girls studying in Class IX.

## VI. OPERATIONAL DEFINITIONS OF THE TERMS USED IN THE STUDY

**Mental Health:** Mental health encompasses an individual's perceptions, emotions, and behaviors that influence their overall effectiveness, success, and happiness in life. It reflects how a person thinks, feels, and responds to various life situations (Shalala, 1996). In this study, the mental health status of adolescents is assessed using the standardized tool developed by Talesara and Bano (2011), which comprises 54 items categorized into three dimensions: school-related, home-related, and peer-related factors.

**Academic Achievement:** Academic achievement refers to the level of success and proficiency attained in educational pursuits. In this study, it specifically pertains to the scores obtained by students in their Class VIII annual examinations.

## VII. METHODOLOGY

### Research Design:

The study followed a **descriptive research design** with a **correlational ex-post facto** approach to examine the relationship between mental health and academic achievement.

### Population:

The target population for the study comprised **Class IX students** from schools in **Kerala**.

#### **Sampling Technique:**

A **simple random sampling technique** was employed to select the participants.

#### **Sample:**

The study included **100 students (50 boys and 50 girls)** who had secured **60% to 70% aggregate marks** in their previous annual examination. These students were selected from **four schools in Kerala**.

#### **Tools Used:**

1. **Mental Health Scale (Talesara & Bano, 2011):**

- Used to assess the mental health of students.
- The scale consists of **54 items** categorized into three dimensions:
  - **School-related factors**
  - **Home-related factors**
  - **Peer-related factors**
- **Reliability:** 0.72
- **Concurrent validity:** 0.69
- **Z-score norms** for each dimension ranged from **-2.01 to +2.01**.

2. **Academic Achievement:**

- Measured using **students' scores from their Class VIII annual examination**.
- Scores were **converted into percentage-based normal scores** for standardization.
- Since all students took the same standardized examination under a common evaluation system, this ensured fairness and comparability in performance assessment.

## **VIII. ANALYSIS AND INTERPRETATION OF DATA**

To evaluate the outcomes of the study, various statistical methods were applied, including the calculation of the mean, median, mode, standard deviation, and significance tests to examine the relationship between mental health and academic achievement.

#### **Mental Health Analysis Using Descriptive and Inferential Statistics**

The dataset was analyzed using both descriptive and inferential statistical techniques. To assess the normality of the distribution, several statistical measures were considered:

- The mean mental health score was found to be 24.32, with a median of 24.64 and a mode of 25.28.
- The standard deviation was calculated as 6.08, indicating the spread of scores around the mean.
- The third quartile (Q3) and first quartile (Q1) were recorded as 28.57 and 19.93, respectively, while the interquartile range (Q) was 4.32.
- The 90th percentile (P90) and 10th percentile (P10) were 33.63 and 15.82, respectively.
- The skewness value of -0.148 suggested a slight negative skew in the distribution, meaning that more students had mental health scores concentrated towards the higher end of the scale.

- The kurtosis value of 0.242 indicated a slightly leptokurtic distribution, meaning the data had a higher peak than a normal distribution.

### Classification of Students Based on Mental Health

Using the calculated mean and standard deviation, students were categorized into different mental health levels:

- 14% of students exhibited high mental health.
- 16% were classified as having above-average mental health.
- 52% fell within the average mental health category.
- 10% had below-average mental health.
- 8% were identified as having poor mental health.

### Significance Testing and Comparison of Sub-Samples

To examine significant differences among various sub-groups, t-tests were conducted. The values for mean, standard deviation, and standard error difference were calculated across different sub-samples, and the statistical findings were compiled in Table 1 for further interpretation.

This analysis highlights the mental health distribution among students and its potential influence on academic performance.

**Tabel 1: Summary of ‘t’ ratios between the two sub-samples on Mental Health**

Variations	Sub Samples	N	M	SD	SED	‘t’ Ratio	Remarks
Gender	Boys	55	25.35	6.8	1.49	5.6	P<0.01
	Girls	45	18.68	6.5			
Local	Rural	54	25.98	5.9	1.78	5.12	P<0.01
	Urban	46	20.27	5.3			
Type of Management	Private	44	25.21	6.2	1.29	0.85	NS
	Government	56	24.40	6.9			

t 0.05 for df 109 = 1.98; t 0.01 for df 98 = 2.61

On perusal of the above table, it was evident that the ‘t’ ratio in case of gender variation was highly significant, the boys showing supremacy in the degree of mental health compared to the girls. The ‘t’ ratios in case of the sub-samples of locale variation group was also significant.

### Differential analysis on Academic Achievement:

In case of academic achievement, the mean of the distribution was 78.25, median 78.70 and mode 79.6. The standard deviation of the distribution was 9.55. When the normality in distribution of academic achievement scores was studied, it was formed that there are 75 percent of cases within  $\pm 16$  and 97 and 100 percent of cases within  $\pm 26$  &  $\pm 36$  respectively as against 68.26, 95.4 and 99.97 percent of cases in a normal curve. The skewness and kurtosis of the curve was calculated which were found to be 0.141 and 0.236 respectively as against 0 and 0.263 for a normal curve. This revealed that academic achievement of the students was not normally distributed. The mean, SD and ‘t’ ratios of the sub samples have been calculated and presented in a table 2.

**Table 2 Summary of ‘t’ ratios of sub samples due to gender, locale and type of management variations on Academic Achievement**

Variations	Sub Samples	N	M	SD	‘t’ Ratio	Remarks
Gender	Boys	55	79.24	9.35	1.27	NS
	Girls	45	77.15	9.38		
Local	Rural	54	79.49	9.69	2.36	P<0.05
	Urban	46	76.38	9.56		
Type of Management	Private	44	81.22	9.6	3.92	P<0.01
	Government	56	75.87	9.8		

On perusal of the above table, it was observed that the 't' ratio in case of locale and type of management variations were significant but in case of gender, it was not significant. Boys and girls did not differ in their academic achievement. The result indicated that locale and type of management are good predictors of academic achievement. The result was in conformity with earlier studies of Singh (2015) & Zada et.al (2021). On above basis the investigator concluded that the result obtained in the present study was appropriate.

### Relationship Study:

In this study also the investigator attempted to find out relationship between mental health and academic achievement in the context of the view point that good mental health is the acquired tendency and disposition to strive for success with same standard of excellence. In that context, relationship between mental health and academic achievement in relation to the gender, locale and type of management variables were computed and the result was presented in a table 3.

**Table 3 Co-efficient of co-relation between Mental Health and Academic Achievement**

Variations	Sub Samples	N	R	Remarks
Gender	Boys	55	0.42	P<0.01
	Girls	45	0.32	P<0.05
Local	Rural	54	0.43	P<0.01
	Urban	46	0.33	P<0.05
Type of Management	Private	44	0.43	P<0.01
	Government	56	0.30	P<0.05
	Total	100	0.44	P<0.01

From the table, it was observed that in each case the relationship was significant. The study was in conformity with earlier studies of Singh (2015) & Zada et.al (2021).

## IX. RESULT AND DISCUSSION

### Findings

The study revealed several key insights regarding the relationship between mental health and academic achievement among students. It was observed that there is a significant difference in mental health between boys and girls, with boys exhibiting better mental well-being. Additionally, the study found that mental health varied significantly based on locale, suggesting that students from different geographical backgrounds experience different levels of mental stability and emotional resilience. However, when considering the type of school management (such as government and private institutions), no significant difference was found in students' mental health, indicating that school governance does not play a major role in shaping their psychological well-being.

In terms of academic achievement, gender did not appear to be a determining factor, as both boys and girls performed similarly in their studies. However, the study found that locale and the type of school management significantly influenced academic performance, suggesting that environmental and institutional factors contribute to students' success. Most importantly, the research highlighted a strong and significant correlation between mental health and academic achievement, confirming that students with better mental health tend to excel in academics compared to those struggling with mental well-being challenges.

### Conclusion

The mental well-being of adolescents is influenced by multiple factors, and both parents and teachers play an essential role in shaping their emotional and academic development. A nurturing and supportive home environment, coupled with positive reinforcement from educators, is crucial for fostering a student's confidence, motivation, and overall success.

Parents should instill values, traditions, and a sense of discipline in their children while allowing them the necessary freedom to develop independence. Encouraging adolescents to participate in decision-making both at home and in school can further enhance their self-esteem and responsibility. Similarly, teachers should adopt a friendly, approachable, and supportive role, ensuring that students feel comfortable seeking guidance and expressing their concerns. By creating a trustworthy and inclusive environment, educators can contribute significantly to the mental and emotional stability of their students, which in turn reflects in their academic performance.

## Recommendations

### The Role of Parents

Parental involvement is one of the most significant factors influencing a child's mental health. A strong and positive parent-child relationship helps adolescents develop emotional stability and resilience. The Family Communication Pattern Theory emphasizes two crucial aspects:

1. **Conversation Orientation** – Families should engage in open, spontaneous discussions, allowing members to share their thoughts freely and contribute to shaping social realities.
2. **Conformity Orientation** – A balance must be maintained by ensuring that family values, traditions, and beliefs are upheld while respecting individual differences.

A secure and emotionally supportive attachment between parents and children plays a vital role in maintaining mental health. To facilitate this, parents must be guided on effective communication strategies to encourage open and healthy discussions with their adolescents. Furthermore, parents should learn to strike a balance between supervision and independence, providing their children with emotional support without being overly controlling.

Establishing a democratic family environment is equally important, where children feel valued and heard while still following necessary rules and boundaries. Additionally, parents should introduce sex education in a responsible and positive manner to help adolescents navigate sensitive topics with awareness and confidence. To achieve this, counseling programs and workshops should be conducted by social welfare organizations, offering parents guidance on fostering a healthy and open dialogue with their children.

As adolescents transition through different stages of growth, parenting approaches should evolve from an authoritative to a collaborative model. While guidance and structure remain necessary, the emphasis should shift towards mutual respect, effective communication, and emotional support rather than enforcing rigid rules. By doing so, parents can create a safe and nurturing environment where adolescents feel secure, confident, and well-equipped to handle life's challenges.

### The Role of Schools and Teachers

Given that students spend a significant portion of their lives in schools, it is crucial that educational institutions foster an environment that promotes both mental well-being and academic excellence. Schools should encourage an open and inclusive atmosphere where students feel comfortable discussing their concerns, including social and psychological challenges. Teachers play a pivotal role in shaping a student's outlook on life. Beyond academic instruction, they are responsible for cultivating a positive learning environment, enhancing civic awareness, and promoting healthy discussions on social issues. By encouraging student engagement in debates, discussions, and critical thinking exercises, teachers can help foster a sense of responsibility and active participation in societal matters. A strong teacher-student relationship is one of the most important factors influencing a student's sense of belonging in school. When students feel emotionally connected to their teachers, they are more likely to perform better academically and experience greater mental stability. Educators should recognize the diverse backgrounds and unique challenges that students face and adjust their teaching methods accordingly.

Furthermore, schools should work towards establishing a supportive and friendly environment where students feel safe and valued. Teachers should not only focus on academic instruction but also prioritize mental and emotional well-being by fostering a climate of empathy, encouragement, and positive reinforcement. By implementing these recommendations, both parents and educators can collaborate in creating a nurturing and supportive framework that enables adolescents to develop strong mental health and achieve academic success.

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