



Exploring the Influence of Mental Health on Academic Achievement in Higher Secondary Education

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ARTICLE DETAILS

Research Paper

Received: **05/03/2026**

Accepted: **20/03/2026**

Published: **31/03/2026**

Keywords: Mental health, gender, type of school, academic performance, higher secondary school students

ABSTRACT

The purpose of this study was to find the main and interactional effect of Mental health, gender and type of school on academic performance of higher secondary school students in Durg district in Chhattisgarh. A sample of 1480 students for the study was taken through stratified disproportionate random sampling technique. Scale developed by Devendra Singh Sisodia and Pooja Chaudhari (2012) used to collect the data for Mental health and for academic performance score, percentage marks obtained by the students in the class 10th board examination has been used. Statistical technique Mean, SD. And F-test has been applied to analyze the data and findings revealed that students with high Mental health are best in their academics. Boys perform better compare to girls counterpart and students of government schools are the good performer in their academics as compare to private school students.



INTRODUCTION-

The history of education is as old as humanity. It has been viewed as a necessary component of any human community since the very beginning of civilization. As a result, it has to be updated to reflect both societal and personal needs. The phrase "mental health" refers to the condition of a person who has high emotional stability, good social integration, sufficient reality perception, self-concept, integrated personality, and environmental competences. It is everything about how we think, feel, and behave when we have a mental condition. Mental health represents either a degree of cognitive or emotional well-being. From positive psychology or holistic viewpoints, a person's capacity to enjoy life and strike a balance between different aspects of it can be considered a sign of mental health. Mental health involves the health of our social, psychological, and emotional selves. Mental health influences our thoughts, emotions, and behaviors. Additionally, it influences how we respond to stress, interact with others, and make decisions. It enables students to handle stress and engage in physical exercise while being more assured in their thoughts. A student's ability to succeed can be influenced by their ability to maintain good mental health, which is necessary for general well-being.

OBJECTIVE –

- To find the influences of mental health, gender and type of school on academic performance of higher secondary school students.

HYPOTHESIS –

H₀ -There will be no specific differences of mental health, gender and type of school on academic performance of higher secondary school students.

SAMPLE -

The present study has been conducted on higher secondary school 800 students (400 boys and 400 girls) of Durg district in Chhattisgarh. Students have been drawn with stratified disproportionate random sampling method.

TOOLS -

1. Scale developed by Devendra Singh Sisodia and Pooja Chaudhari (2012) used to collect the data for Mental Health.
2. For academic performance percentage score obtained by the students in class 10th board examination.

**DATA ANALYSIS -**

After the collection of data, data were coded and entered into SPSS version 28.0.0 software for statistical analysis and F-test was applied to analyze the data.

RESULT AND DISCUSSION–

H₀. There will be no significant effect of Mental health, Gender and Type of School on Academic Performance of Higher Secondary School Students.

To examine the independent variables mental health (2- high and low), gender (2- boys and girls) and type of school (2-Government and private school) has been selected. Threeway ANOVA with 2×2× 2 factorial design used to test the main and interactional effects respectively.

Table 1

Summary of ANOVA for 2× 2× 2factorial experiment of academic performance of higher secondary school students

Source of Variance	Type III Sum of Squares	df	Mean sum of squares	F-ratio
Mental health	1097.461	1	1097.461	7.490*
Gender	1060.301	1	1060.301	7.236*
Type of school	743.051	1	743.051	5.071**
Mental health * Gender	258.781	1	258.781	1.766 ^{NS}
Mental health *Type of school	47.531	1	47.531	0.324 ^{NS}
Gender*Type of school	0.151	1	0.151	0.001 ^{NS}
Mental health *Gender * Type of school *	11.281	1	11.281	0.077 ^{NS}
Error	116052.290	792	146.531	
Total	3708997.000	800		
Corrected Total	119270.849	799		

*Significant at .01 level, **Significant at .05 level, NS= Not Significant, N = 800

* Main Effect of **Mental Health** on academic performance of higher secondary school students

In table 1 the main effect of **Mental Health** was found to be significant [$(1/792) = 7.490$, $p <$



.01]. It is indicated that there is an individual effect of **Mental Health** on academic performance of higher secondary school students. Therefore the null hypothesis stated as “There will be no significant effect of **Mental Health** on academic performance of higher secondary school students” has been **rejected** i.e. **Mental Health** produced main effect on academic performance of higher secondary school students.

Table 2

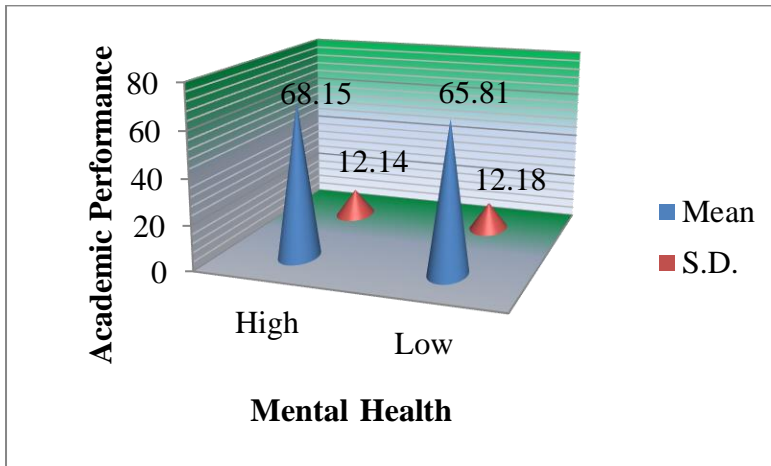
Showing the main effect of mental health on academic performance of higher secondary school students

Mental health	High	M = 68.15 SD =12.14 N = 400
	Low	M = 65.81 SD = 12.18 N = 400

It was observed from table 2 that academic performance of higher secondary school students with high **Mental health** (M= **68.15**) differ significantly from academic performance of higher secondary school students with low **Mental health** (M=**65.81**). Therefore academic performance of higher secondary school students with high **Mental health** is higher than academic performance of higher secondary school students with low **Mental health**. Therefore academic performance of higher secondary school students with high **Mental Health** is higher than academic performance of higher secondary school students. Reason for this difference is students with good mental health definitely perform very well in their academics. Balanced and mentally healthy students are very keen to do studies with full of interest. Dix, Slee, Lawson & Keeves (2012), O’Connor, Cloney, Kvalsvig & Goldfeld (2019) Agnafors, Barmark & Sydsjo (2021) Wyatt, Oswalt, & Ochoa (2017) also found the similar results.

In order to know the influence of **Mental Health** on academic performance of higher secondary school students graph 1 has been plotted.

Graph 1: Influence of main effect of **Mental Health** on academic performance of higher secondary school students.



* **Main Effect of Gender** on academic performance of higher secondary school students

Main effect of gender was found to be significant [$(1/792) = 7.236, p < .01$]. There was an individual effect of gender on academic performance of higher secondary school students. Therefore the null hypothesis stated as “There exists no significant effect of gender on academic performance of higher secondary school students” has been **rejected** i.e. gender produced main effect on academic performance of higher secondary school students

Table 3

Showing the main effect of Gender on academic performance of higher secondary school students

Gender	Boys	M = 68.13 SD = 12.64 N = 400
	Girls	M = 65.83 SD = 11.68 N = 400

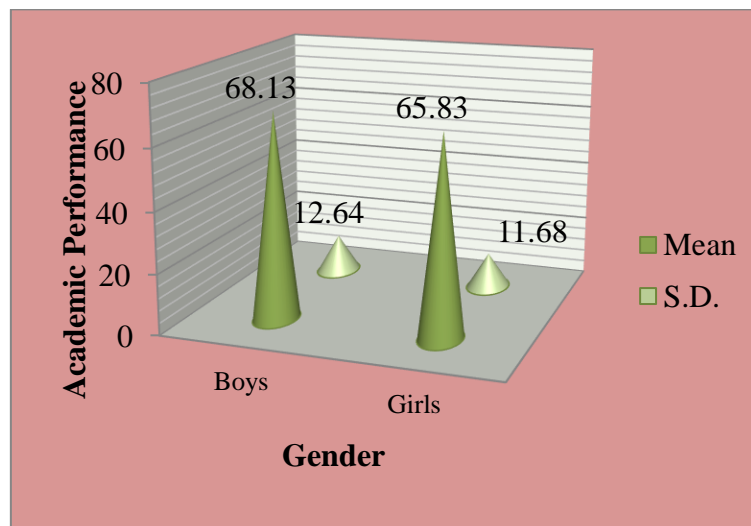
It was observed from table 3 that academic performance of boys (M=68.137) differs significantly from academic performance of girls (M=65.835). Therefore academic performance of boys’ students’ higher secondary school is significantly higher than academic performance of girls’ students’ higher secondary school. Reason for this difference may be as compared to girls, boys are more committed to and focused on their studies.

Boys do their studies willingly, while girls are more interested and participate in extracurricular activities in school. Joseph et al.(2015),Dubucet al.((2020),Nnamani and Oyibe (2016) andKisigot et al. (2021) found similar result.

Therefore academic performance of boys' students' higher secondary school is significantly higher than academic performance of girls' students' higher secondary school.

In order to know the influence of gender onacademic performance of higher secondary school students graph 2 has been plotted.

Graph 2: Influence of main effect of gender on academic performance of higher secondary school students.



* Main Effect of Type of School on **academic performance of higher secondary school students**

Main effect of Type of School was found to be significant [(1/792) =5.071, $p<.05$]. There was an individual effect of Type of School on academic performance of higher secondary school students. Therefore the null hypothesis stated as “There exists no significant effect of type of school on academic performance of higher secondary school students” has been **rejected** i.e. type of school produced main effect on academic performance of higher secondary school students.

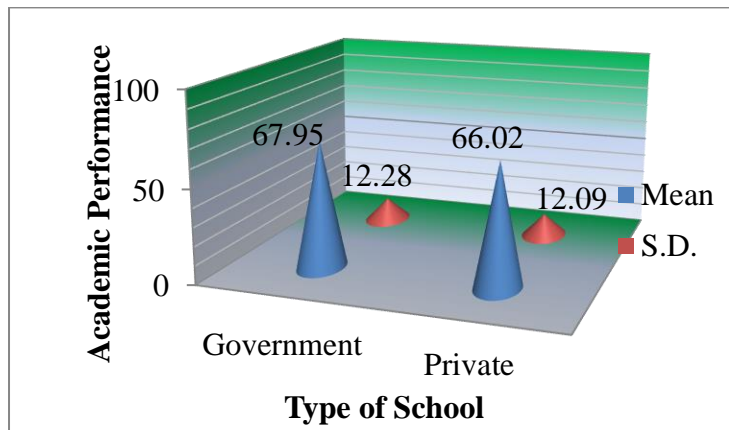


Table 4

Showing the main effect of Type of School on academic performance of higher secondary school students

Type of School	Government	M = 67.95 SD =12.28 N =400
	Private	M = 66.02 SD =12.09 N = 400

It was observed from table 4 that academic performance of students of Government schools (M=67.95) is significantly differ from students of Private schools (M = 66.02). Therefore academic performance of students of Government schools is significantly higher than academic performance of students of Private schools. **Cansız (2019)** found similar result. Therefore academic performance of students of Government schools is significantly higher than academic performance of students of Private schools. Better curriculum design, better presentation of the course content, more learning resources including the more sophisticated and more effective use of learning technologies, less number of problems related to discipline are the reasons that students performs well in government schools. But **Harry (2016)** and **Kamla and Lakshmi (2022)** not found any significant difference between academic performance and type of school not found any significant difference between Type of school on academic performance. In order to know the influence of type of school on academic performance of higher secondary school students graph 3 has been plotted. Graph 3: Influence of main effect of type of school on academic performance of higher secondary school students.



- * **Two order Interactional effect of Mental Health and Gender** on academic performance of higher secondary school students

From the table 1 it can be seen that F- value of **1.766 (df=1/792)** for interactional effect of **Mental Health** and gender was not found to be significant. It indicates that the mean scores of academic performance of higher secondary school students in context of **Mental Health** and gender did not differ significantly. Therefore the hypothesis is “**There exists no significant effect of Mental Health and gender on academic performance of higher secondary school students**” is accepted.

- * **Two order Interactional effect of Mental Health and Type of school** on academic performance of higher secondary school students

From the table 1 it can be seen that F- value of **0.324 (df=1/792)** for interactional effect of **Mental Health** and type of school was not found to be significant. It indicates that the mean scores of academic performance of higher secondary school students in context of **Mental Health** and type of school did not differ significantly. Therefore the hypothesis is “**There exists no significant effect of Mental Health and type of school on academic performance of higher secondary school students**” is accepted.

- * **Two order Interactional Effect of Gender and Type of School** on academic performance of higher secondary school students

From the table 1 it can be seen that F- value of **0.001 (df=1/792)** for interactional effect of gender and type of school was not found to be significant. It indicates that the mean scores of academic performance of higher secondary school students in context of gender and type of school did not differ significantly.



Therefore the hypothesis is “**There exists no significant effect of gender and type of school on academic performance of higher secondary school students**” is accepted.

* Three order Interactional Effect of **Mental Health**, Gender and Type of School on academic performance of higher secondary school students

From the table 1 it can be seen that F- value of **0.077 (df=1/792)** for interactional effect of **Mental Health**, gender and type of school was not found to be significant. It indicates that the mean scores of academic performance of higher secondary school students in context of **Mental Health**, gender and type of school did not differ significantly. Therefore the hypothesis is “**There exists no significant effect of Mental Health, gender and type of school on academic performance of higher secondary school students**” is accepted.

CONCLUSION

Three way ANOVA with 2x2x2 factorial design was employed to study the main and interactional effect of mental health, gender and type of school on academic performance. The above hypothesis is rejected that “There will be no significant effect of mental health, gender and type of school on academic performance of higher secondary school students.” i.e. mental health, gender and type of school influences the academic performance of higher secondary school students.

SUGGESTIONS AND EDUCATIONAL IMPLICATIONS

Academic performance is very important factor for the students to show their caliber, interest and success in their academics. Student with good academics and balanced mental health can achieve the good position in the class as well as in the society. With good academic performance and sensible mental health students can make their future bright. Well academic performers with steady mental health may get the favorable outcome in their exams and may pass over their obstacles related to different problems. For good academic performance of students some steps should be taken by the educational institutions-

- The teacher should motivate the students in learning process.
- Teachers always try to apply new and interesting teaching methods to deal the content so that students may take more and more interest in their studies.



- Guidance and counseling cell should be established in each and every educational institution to provide advice to the students.
- Diagnostic assessments should be organized continuously in the classes to know the difficulties during learning process of students.
- Remedial classes should be designed to bring the weak students in main stream.
- Teacher should be equally focused to all the students.

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