



A Study of Mental Stress of Secondary School Students in this COVID-19 Pandemic

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1. Introduction

Since December, 2019, the whole world facing a critically very bad situations due to COVID-19. Schools, colleges and all other educational institutions are on off mode and education is online due to protocols of COVID pandemic. From preprimary to higher education students are studying from using online educational system. Due to social distancing students are unable to go anywhere even with their friends, raised a critical mental health issue among them. These mental health issues are leading obstruction to academic success. Mental health issues can affect students' study, motivation, concentration and other social interactions. We should understand that pandemic is not just the medical disaster, it affects social, emotional and psychological way of people. Due to this pandemic, lot of students developed psychological problems that are affecting learning process and all over their personality. In present research, the researcher studied the mental stress of secondary school student in relation to different variables.

2. Objectives of the Study

Objectives of present study are as follows.

- 1.To study the mental stress of secondary school students in this pandemic.
- 2.To study the mental stress of secondary school students in the context of grade.
- 3.To study the mental stress of secondary school students in the context of gender.

3. Variables of the Study

In present study, the researcher studied the mental stress of secondary school students in the context of some variables. The variables of present study were as under.

3.1 Independent variables

The independent variables in present study were as follow.

1. Grade
 - a. Grade IX
 - b. Grade X
2. Gender
 - a. Boys
 - b. Girls

3.2 Dependent variables

The researcher constructed a Mental Stress Inventory to know the level of mental stress among secondary school student. The scores of this Mental Stress Inventory was dependent variable in present study.

4. Hypotheses of the Study

The researcher constructed following hypotheses to study the mental stress of secondary school students in the context of independent variables.

Ho1 There is no significant difference between mean scores of Mental Stress Inventory obtained by the students of grade ix and grade x of Ahmedabad city.

Ho2 There is no significant difference between mean scores of Mental Stress Inventory obtained by the boys and girls of secondary schools of Ahmedabad city.

Ho3 There is no significant difference between mean scores of Mental Stress Inventory obtained by the boys and girls of grade ix of secondary schools of Ahmedabad city.

Ho4 There is no significant difference between mean scores of Mental Stress Inventory obtained by the boys and girls of grade x of secondary schools of Ahmedabad city.

Ho5 There is no significant difference between mean scores of Mental Stress Inventory obtained by the boys of grade ix and grade x of secondary schools of Ahmedabad city.

Ho6 There is no significant difference between mean scores of Mental Stress Inventory obtained by the girls of grade ix and grade x of secondary schools of Ahmedabad city.

5. Limitations of the Study

The following are the limitations of present study.

- 1.The present research was conducted in selected Gujarati medium schools of Ahmedabad city.
- 2.A self-constructed Mental Stress Inventory was used in present study.

6. Research Method

A scientific research method saves researcher's time and provide a proper direction. In present study, the researcher constructed a Mental Stress Inventory for secondary school students in current pandemic. Though it is impossible to visit schools and collect data physically from selected samples, the researcher converted its tool in google form and tried to collect data. Thus, an online survey method was used in present study.

7. Research Tool

The researcher constructed a Mental Stress Inventory for secondary school students of Ahmedabad city. The main purpose was to study the mental stress felt by the students basically due to current pandemic situation. Thus, the researcher constructed specific items regarding mental stress developed due to pandemic. The researcher constructed a primary form of inventory and send it to different experts of research. They were asked to provide suggestions regarding appropriateness of items and research tools. As per the suggestions obtained by the experts, the researcher reconstructed Mental Stress Inventory and used it as a data collection tool.

The researcher constructed 25 items in final tools. Each item has three responses: 1) Agree, 2) Neutral and 3) Disagree.

8. Sample of the Study

The researcher randomly selected four schools from Ahmedabad city and students studying in grad ix and grade x are selected as a final sample. The sample of present study was as given in below table.

Table 1: Sample of the Study

No.	School	Grade IX		Grade X		Total
		Boys	Girls	Boys	Girls	
1	Uma Vidyalaya, Nikol	23	20	25	19	87
2	Raghuvir Vidyalaya, Parshwanath Township	21	18	23	20	82
3	Wide Vision School, Krishna Nagar	22	17	20	19	78
4	Umiya School, Krishna Nagar	27	20	23	18	88
Total		93	75	91	76	335

The researcher selected 93 boys and 75 girls from grade ix and 91 boys and 76 girls from grade x. Overall, 335 students were selected from four secondary schools of Ahmedabad city.

9. Procedure of Data Collection

Due to Corona pandemic, it was impossible to visit schools and subjects physically. The researcher constructed google form of his tool and shared link to the teachers of selected schools and they shared this link in their group of students. The researcher personally explained about the tool to the students online and collected the data from them. The data was obtained in excel sheet created by google form.

10. Statistical Techniques used for Data Analysis

The researcher constructed few hypotheses to study the effect of independent variables on mental stress of secondary school student. The researcher conducted t-test to check the hypotheses.

11. Results of t-tests

To check the hypotheses, the researcher conducted t-test. The results of t-test are as follow.

Ho1 There is no significant difference between mean scores of Mental Stress Inventory obtained by the students of grade ix and grade x of Ahmedabad city.

Table 2: t-test between mean scores of students of grade ix and grade x

Grade	N	M	SD	SED	t	Significance
Grade IX	168	38.09	3.53	0.40	7.22	0.01
Grade X	167	40.96	3.76			

df	0.05	0.01
333	1.97	2.59

According to above table, calculated t-value is 7.22. For df=333, table t-values are 1.97 at 0.05 level and 2.59 at 0.01 level. Calculated t-value is more than table t-value at both levels. Thus, hypothesis is rejected and there is a significant difference between mean scores of students of grade ix and grade x. Moreover, mean score of students of grade x is higher than mean score of students of grade ix. Therefore, it is revealed that the students of grade x have more mental stress in present pandemic than the students of grade ix.

Ho2 There is no significant difference between mean scores of Mental Stress Inventory obtained by the boys and girls of secondary schools of Ahmedabad city.

Table 3 :t-test between mean scores of boys and girls

Gender	N	M	SD	SED	t	Significance
Boys	184	40.34	3.66	0.40	4.07	0.01
Girls	151	38.71	3.62			

df	0.05	0.01
333	1.97	2.59

According to above table, calculated t-value is 4.07. For df=333, table t-values are 1.97 at 0.05 level and 2.59 at 0.01 level. Calculated t-value is more than table t-value at both levels. Thus, hypothesis is rejected and there is a significant difference between mean scores of boys and girls. Moreover, mean score of boys is higher than mean score of girls. Therefore, it is revealed that the boys have more mental stress in present pandemic than the girls.

Ho3 There is no significant difference between mean scores of Mental Stress Inventory obtained by the boys and girls of grade ix of secondary schools of Ahmedabad city.

Table 4: t-test between mean scores of boys and girls of grade ix

Grade IX	N	M	SD	SED	t	Significance
Boys	93	38.28	3.27	0.55	0.71	NS
Girls	75	37.89	3.78			

df	0.05	0.01
166	1.97	2.61

According to above table, calculated t-value is 0.71. For df=166, table t-values are 1.97 at 0.05 level and 2.61 at 0.01 level. Calculated t-value is less than table t-value at both levels. Thus, hypothesis is not rejected and there is no significant difference between mean scores of boys and girls of grade ix. Therefore, it is revealed that the boys and the girls of grade ix have equal mental stress in present pandemic.

Ho4 There is no significant difference between mean scores of Mental Stress Inventory obtained by the boys and girls of grade x of secondary schools of Ahmedabad city.

Table 5: t-test between mean scores of boys and girls of grade x

Grade X	N	M	SD	SED	t	Significance
Boys	91	42.39	4.05	0.58	4.92	0.01
Girls	76	39.53	3.46			

df	0.05	0.01
165	1.97	2.61

According to above table, calculated t-value is 4.92. For df=165, table t-values are 1.97 at 0.05 level and 2.61 at 0.01 level. Calculated t-value is more than table t-value at both levels. Thus, hypothesis is rejected and there is a significant difference between mean scores of boys and girls of grade x. Moreover, mean score of boys of grade x is higher than mean score of girls of grade x. Therefore, it is revealed that the boys of grade x have more mental stress in present pandemic than the girls of grade x.

Ho5 There is no significant difference between mean scores of Mental Stress Inventory obtained by the boys of grade ix and grade x of secondary schools of Ahmedabad city.

Table 6: t-test between mean scores of boys of grade ix and grade x

Boys	N	M	SD	SED	t	Significance
Grade IX	93	38.28	3.27	0.54	7.56	0.01
Grade X	91	42.39	4.05			

df	0.05	0.01
182	1.97	2.60

According to above table, calculated t-value is 7.56. For df=182, table t-values are 1.97 at 0.05 level and 2.59 at 0.01 level. Calculated t-value is more than table t-value at both levels. Thus, hypothesis is rejected and there is a significant difference between mean scores of boys of grade ix and grade x. Moreover, mean score of boys of grade x is higher than mean score of boys of grade ix. Therefore, it is revealed that the boys of grade x have more mental stress in present pandemic than the boys of grade ix.

Ho6 There is no significant difference between mean scores of Mental Stress Inventory obtained by the girls of grade ix and grade x of secondary schools of Ahmedabad city.

Table 6: t-test between mean scores of girls of grade ix and grade x

Girls	N	M	SD	SED	t	Significance
Grade IX	75	37.89	3.78	0.59	2.78	0.01
Grade X	76	39.53	3.46			

df	0.05	0.01
149	1.98	2.61

According to above table, calculated t-value is 2.78. For df=149, table t-values are 1.98 at 0.05 level and 2.61 at 0.01 level. Calculated t-value is more than table t-value at both levels. Thus, hypothesis is rejected and there is a significant difference between mean scores of girls of grade ix and grade x. Moreover, mean score of girls of grade x is higher than mean score of girls of grade ix. Therefore, it is revealed that the girls of grade x have more mental stress in present pandemic than the girls of grade ix.

12. Major Findings

The major findings of present study are as below.

- 1.The students of grade x have more mental stress in present pandemic than the students of grade ix.
- 2.The boys have more mental stress in present pandemic than the girls.
- 3.The boys and the girls of grade ix have equal mental stress in present pandemic.
- 4.The boys of grade x have more mental stress in present pandemic than the girls of grade x.
- 5.The boys of grade x have more mental stress in present pandemic than the boys of grade ix.
- 6.The girls of grade x have more mental stress in present pandemic than the girls of grade ix.

13. Conclusion

The researcher constructed a Mental Stress Inventory for secondary school students in present pandemic. A sample of 335 students were selected from secondary schools of Ahmedabad city. The researcher converted his tool in google form and data was collected by sharing link. After research it was revealed that the students of grade x have more mental stress than students of grade ix. It was also revealed that the boys have more mental stress than girls. A surprising result was obtained in grade ix student. The boys and the girls of grade ix have equal mental stress in this pandemic.

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