

ISSN: 2230-9926

Available online at http://www.journalijdr.com



International Journal of Development Research Vol. 15, Issue, 01, pp. 67573-67577, January, 2025 https://doi.org/10.37118/ijdr.29165.01.2025



RESEARCH ARTICLE OPEN ACCESS

ASSESSMENT OF ACADEMIC STRESS AND SELF-ESTEEM AMONG THE STUDENTS IN COVID-19 PANDEMIC IN SELECTED SCHOOLS, WEST BENGAL

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ARTICLE INFO

Article History:

Received 27th November, 2024 Received in revised form 19th December, 2024 Accepted 06th December, 2024 Published online 30th January, 2025

Key Words:

Academic stress, Self esteem.

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ABSTRACT

Introduction: A descriptive study aimed to assess academic stress and self-esteem among students during the COVID-19 pandemic in selected schools in West Bengal. The study's objectives included evaluating the levels of academic stress and self-esteem, exploring the correlation between the two, and determining the association of these variables with selected demographic factors. Methodology: The conceptual framework was grounded in Richard Lazarus and Folk man's Transactional Model of Stress and Coping. A total of 100 students were selected through stratified random sampling. Data were collected using a semi-structured questionnaire for background information, the Modified Academic Stress Scale based on Kim's (1970) framework to measure academic stress, and the Rosenberg Self-Esteem Scale for self-esteem assessment. Results indicated that 76% of students experienced moderate academic stress, while 10% reported high stress and 14% low stress; additionally, 51% of the students exhibited normal self-esteem, whereas 49% had low self-esteem. A negative correlation (r = -0.38) was identified between academic stress and self-esteem, suggesting that increased academic stress correlates with lower self-esteem. Statistically significant associations were found between academic stress and self-esteem with demographic variables such as family type, father's educational level, and monthly family income at a 0.05 significance level. Discussion: A significant relationship was also noted between mothers' occupations and academic stress at the same level of significance. The findings underscore the implications for nursing practice and suggest that further research with larger samples and diverse settings is warranted to enhance generaizability.

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Citation: Puja Dutta and Ruma Roy. 2025. "Assessment of Academic Stress and self-esteem Among the Students in Covid-19 Pandemic in Selected Schools, West Bengal". International Journal of Development Research, 15, (01), 67573-67577.

INTRODUCTION

Stress is characterized as a state of mental or emotional distress stemming from challenging situations, with the body responding nonspecifically to environmental demands. While mild stress can enhance productivity and reactivity, prolonged high levels of stress can lead to significant mental and physical health issues. The COVID-19 pandemic, which began in December 2019 and was declared a global pandemic in March 2020, has significantly intensified psychological problems worldwide. Lockdowns and isolation have led to increased anxiety, anger, confusion, and stress, particularly among vulnerable groups such as the elderly, infected individuals, healthcare workers, and students. The prevalence of mental health issues during the pandemic has surged, with global stress levels reported at 36.5%, and a 25% increase in anxiety and depression noted in the first year of the pandemic. A survey indicated that 28% of respondents aged 16-24 and 50% of those aged 24-34 experienced heightened stress and anxiety over the past year. Academic stress, which involves mental distress related to academic performance or the fear of failure, has also been exacerbated during the pandemic.

In India, 63.5% of students reported academic pressure as a significant source of stress, with 45% of high school students experiencing daily stress. The pandemic has forced approximately 300 million school students worldwide to shift to online learning, which, while intended to ensure educational continuity, has introduced new sources of stress. Challenges associated with online education include disruptions in face-to-face interactions, difficulties in adapting to virtual learning environments, limited social engagement, inadequate technological resources, and the need for self-discipline. These factors have collectively contributed to increased academic stress during this unprecedented period.

Objectives of the study were

- 1. To assess the level of academic stress among the school students.
- 2. To identify the level of self-esteem among the school students.
- 3. To find out correlation between academic stress and self-esteem.
- 4. To determine association between academic stress and the selected demographic variables.
- 5. To determine association between self-esteem of students and the selected demographic variables.

METHODOLOGY

Research approach and Research Design: In order to achieve the objectives of the study, qquantitative rresearch aapproach and a descriptive study design was adopted.

Sample: In the present study, the sample consisted of students from selected schools in Bankura who met specific inclusion criteria. The inclusion criteria included both boys and girls in classes VIII and IX who were willing to participate and available during the study period. Additionally, students were required to be able to read, write, and understand at least one language, either English or Bengali. Conversely, students who were physically or emotionally unable to participate were excluded from the study. This selection process ensured a relevant and appropriate sample for assessing academic stress and self-esteem among the target population.

Table 1. Tools of the study

Sl.No	Variables	Tools	Techniques
1.	Demographic	Semi structured Interview	Interviewing
	variables	schedule	
2.	Academic stress	Modified Academic Stress	Questioning
		Scale, Kim (1970)	
3	Self-esteem	Rosen berg Self-esteem scale	Questioning

Procedure of data collection: Data for the study were collected from April 10, 2023, to May 6, 2023. Following discussions with the headmaster and headmistress of the selected schools, a suitable date and time were established for a meeting with the guardians to provide information about the purpose and process of the research study, as well as to obtain their informed consent. Participants were selected using a stratified random sampling technique based on the established inclusion and exclusion criteria, and informed consent was obtained from the parents of the selected students. The researchers introduced themselves to the participants before data collection commenced. A semi-structured questionnaire was used to gather demographic characteristics, alongside the Modified Academic Stress Scale based on Kim's (1970) Students' Academic Stress Scale to assess academic stress, and the Rosenberg Self-Esteem Scale to evaluate the selfesteem of the students. Confidentiality was maintained by assigning separate code numbers to each respondent. On average, each participant took approximately 1 hour and 30 minutes to complete the questionnaires. The data collection process concluded with expressions of gratitude to the participants, their parents, as well as the teachers and non-teaching staff of the schools.

Ethics committee approval: Before collecting final data, approvals were secured from the Principal and the Institutional Ethics Committee at the Government College of Nursing, I.D. & B.G. Hospital Campus, Kolkata-10, among other educational authorities in Bankura. Data were gathered from April 10 to May 6, 2023, following a guardian meeting at the selected schools to obtain informed consent. A stratified random sampling method was used to select participants based on specific criteria. The study utilized a semi-structured questionnaire along with the Modified Academic Stress Scale and the Rosenberg Self-Esteem Scale. Confidentiality was ensured by assigning unique codes to each participant. Participants spent approximately 1 hour and 30 minutes completing the questionnaires. The study concluded smoothly with thanks extended to all participants, parents, and school staff, who showed great cooperation and enthusiasm.

RESULTS AND DISCUSSION

Table 2 shows that the majority of students, with males (25; 44%) and females (27; 38%), were in the age group of 17-18 years. The data also reveal that the largest number of students, including 27 males and 28 females, were in eighth grade.

Table 2. Frequency and percentage distribution of students according toselected demographic variables in terms of age, gender, educational level

n=100(50+50) Demographic Variables Gender Male (%) Female (%) Age in years 32 15-16 17-18 25 50 27 54 > 18 13 26 07 14 Educational level Class VII 2.7 54 28 56 Class IX 23 46 44

Table 3 indicates that the majority of the participants' parents— 63%—had an education up to the secondary level, while only 8% had attained a graduate degree. Additionally, the most common occupation among the parents was in the service sector, representing 35% of the sample. The data also show that most students' families had an income ranging from 15,001 to 20,000 rupees. In terms of family composition, the majority (73%) comprised 2 to 4 members, and 61% were from nuclear families.

Table 3. Frequency and percentage distribution ofstudents according toselected demographic variables in terms of their parents' educational standard, occcupation, monthly family income, number of family members

Demographic Variables Percentage (%) Parents level of education Upto primary Upto secondary 63 Higher secondary 17 08 Graduation and above Parents occupation 35 Service Self employed 26 16 Daily worker Unemployed 23 Monthly family income (Rs.) 28 <Rs. 15000 Rs 15001-20000 46 >Rs. 20000 26 Number of family members 2-4 73 5-6 27 Type of family Nuclear 61 35 Joint Others 04

Table 4 shows that the majority of students (76%) experienced a moderate level of academic stress during the COVID-19 pandemic, while only 10% experienced a high level of stress. The levels of academic stress were quantified using the mean and standard deviation (SD).

Table 4. Percentage distribution of students according to their academic stress levels in Covid-19 pandemic

			n=100
Academic stress level	Mean	SD	Percentage
	42.95	±6.23	(%)
High academic stress (Mean+1SD)			10
Moderate academic stress (Mean-			76
SD to Mean+SD)			
Low academic stress (Mean-1SD)			14

Maximum possible score=60 Minimum possible score=0

Table 5 reveals that the majority of participants (59%) experienced extreme stress from maintaining online classes during the pandemic. Additionally, 32% of participants found the physical strain from online classes extremely stressful, while 43% rated the fear of contracting COVID-19 as extremely stressful. Financial difficulties were reported as extremely stressful by 41% of participants. Moreover, 34% of participants cited the non-availability of a separate room for study as extremely stressful, though 39% reported no stress from lacking a technical device for study purposes. Poor internet connection was identified as moderately stressful by the largest group (29%). Attention to studies at home was deemed extremely stressful by 51% of participants, with 55% also finding the lack of help from classmates extremely stressful. Fear of examinations was another significant source of stress, with 60% feeling extreme stress, and the fear of future career prospects similarly stressed 59% of participants. Additionally, 41% felt extremely stressed about being slower than peers. The lack of opportunity to meet teachers was seen as moderately stressful by 43% of participants. Nearly half (49%) experienced extreme stress due to inadequate facilities to clarify doubts during online classes, and 62% found the monotony of online classes extremely stressful.

academic stress is 42.95, with a standard deviation of 6.23, suggesting that students experience a moderate levelof stress that varies somewhat consistently around this average. The median stress score, close to the mean at 44, indicates a relatively symmetric distribution without extreme deviations. There is a moderate inverse correlation (r - 0.38) between academic stress and self-esteem, indicating that as one increases, the other tends to decrease. The statistical significance of this relationship is supported by a t-value of 3.48, with a corresponding p-value of approximately 0.01, confirming that the observed correlation is not due to chance. Self-esteem scores average at 14.86, with a standard deviation of 3.39, showing a similar tight distribution around the mean. The median of 15 aligns closely with the mean, suggesting an even distribution of self-esteem levels among the participants. Overall, the data reveal a clear, significant inverse relationship between academic stress and self-esteem, with implications for educational strategies that aim to address and mitigate student stress to potentially enhance self-esteem.

Table 5. Item wise percentage distribution of students according to their academic stress scores in Covid-19 pandemic

n=100

Area of stress	No stress	Slight stress	Moderate stress	High stress	Extremestress
		(%)	(%)	(%)	(%)
Personal inadequacy					
Maintenance of online classes	04	02	14	21	59
Physical strain from online classes	12	09	29	18	32
Fear of having Covid-19.	09	08	23	17	43
Poor Socio-economic condition	11	07	22	19	41
Inadequate study facilities					
Non-availability of separate room	33	10	10	13	34
Non-availability of online device	39	17	17	14	24
Poor internet connection.	15	29	29	16	24
Poor attention in studies.	07	05	11	25	51
Non- cooperation of classmates	00	06	27	15	55
Fear of failure					
Fear of examination.	00	01	14	25	60
Fear of slow in progress	00	02	17	40	41
Fear of future career	00	02	11	27	59
Interpersonal difficulties with teachers					
Lack of opportunity to meet the teachers.	00	07	43	30	20
Inadequate facilities to clear doubts	00	02	16	33	49
Feeling of teaching method					
Feeling of boredom of online classes	00	02	17	19	62

^{*}Multiple response table

Table 6. Mean, SD, Percentage distribution of the students according to their obtained self-esteem score in Rosenberg self-esteem scale

			n=100
Level of self-esteem	Mean	SD	Percentage (%)
1	14.86	±3.39	Terror State and Provided in
High self-esteem	(Mean+1SD)		00
Normal self-esteem	(Mean-SD to Mean+SD)		51
Low self-esteem	Mean-1SD		49

Maximum possible score=30 Minimum possible score=0

Table 8. Mean, median and Standard Deviation, correlation coefficient and existence of their significance between academic stress scores and self-esteem level of students

			n=100
Variables Mean	SD	Median	r t-value
Academic stress	42.95	6.23	44
		-0.38	3.48*
Self-esteem	14.86	3.39	15

t'df(98)=1.98, P<0.05*

Table 6 shows that the majority of students (51%) had a normal level of self-esteem, while the remaining 49% exhibited low self-esteem.

H0: There is no significant relationship between academic stress and self-esteem among students in Covid-19 pandemic at 0.05 level of significance. The table 8 offers statistical insights into the academic stress and self-esteem levels among students. The average score for

Table 9 presents significant associations between academic stress and various demographic factors based on chi-square tests. The table reveals a significant link between academic stress and the type of family, with a chi-square value of 11.74, which is considerably higher than the critical value of 3.84 at one degree of freedom (df = 1) and a significance level of 0.05. Additionally, there is a significant association between academic stress and the educational qualification

of the parents, with a chi-square value of 9.96, surpassing the critical value of 3.84 at df = 1 and the same level of significance. The table also indicates a significant correlation between academic stress and the occupation of the parents, with a chi-square value of 12.39, again exceeding the critical value of 3.84 at df = 1 and a 0.05 significance level. Moreover, there is a significant relationship between academic stress and monthly family income, with a computed chi-square value of 15.30, which is well above the critical value of 3.84 at df = 1 and at the 0.05 level of significance. These findings underscore the influence of family dynamics and socio-economic factors on the academic stress experienced by students.

Table 9. Chi-square test for association between academic stress of students according to type of family, educational qualification of parent and educational qualification of parent

Demographic variables	Academic stress		Chi-square
	<median< td=""><td>≥median</td><td>value</td></median<>	≥median	value
Occupation of the parent			
Employed	05	23	
Unemployed	41	31	12.39*
Monthly family income			
(In Rupees)			
<20000	11	34	15.30*
≥20000	35	20	
Type of family			
Nuclear	33	52	
Joint	13	02	11.74
Educational qualification of			
parent			
Up to Secondary	17	37	
Above Secondary	29	17	9.96*

 $[\]chi 2 df(1)=3.84, p<0.05*$

CONCLUSION

The comprehensive data from this study provide valuable insights into the impact of familial and socio-economic factors on academic stress and self-esteem among students, particularly during the challenging context of the COVID-19 pandemic. Financial conditions, educational environments, and family dynamics significantly influenced the academic stress experienced by students. The data highlight that the largest proportion of students had moderate levels of academic stress, with a notable percentage experiencing high stress due to factors such as online class maintenance, physical strain from prolonged screen time, and fear associated with the pandemic. Additionally, concerns about future career prospects and academic performance further exacerbated stress levels. Interestingly, self-esteem levels among students were evenly split between normal and low, with a significant correlation between lower self-esteem and higher academic stress. This relationship underscores the psychological impacts of external stressors and suggests that student well-being is heavily influenced by their academic and home environments. Despite these challenges, a considerable number of students reported a positive self-regard, satisfaction with themselves, and respect for their own qualities, indicating a resilience that educational systems and support networks might build upon. Overall, the study highlights the complex interplay between socio-economic status, educational dynamics, and family background in shaping the academic and psychological outcomes for students during an unprecedented global health crisis.

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