

Stress and Academic Achievement of Postgraduate Students

Tania Das¹, Dr. Arjun Chandra Das²

¹Student, Department of Education, University of Kalyani

²Professor, Department of Education, University of Kalyani

Abstract

Nowadays stress has a great impact in our daily life as well as the students and teachers' life. Stress has a significant role in the field of higher education, specifically among postgraduate students' lives. The main objective of the study was to examine whether stress influences academic achievement. A quantitative correlational design was adopted and t-test had been done for the study. By using relevant sampling techniques 287 students were selected as the sample for the study. Data regarding students' stress level and academic achievement were collected through a standardized questionnaire and the students' academic record cards. Pearson's Product Moment Correlation and t-test method were used to analyse the collected data regarding the students' stress level and their academic achievement. This study found a very weak negative correlation between the stress and academic achievement of PG students.

1. Introduction:

Nowadays, stress has a great impact in our daily life as well as our academic life. However, stress is not always harmful, but can be an helpful to.

In today's fast-paced and comparable educational environment stress has become an increasingly common issue among students. Moderate amount of stress can motivate students to stay focused and perform better while excessive or chronic stress can negatively affect academic achievement and overall well-being. High stress level among students can reduce their memory power, concentration and problem-solving ability, which are the most important factors for a student's academic life. In contrast, students who learn to manage stress effectively are often better prepared to handle academic challenges and maintain steady performance.

By understanding the relationship between stress and academic achievement, it can help students, parents, teachers, educators and policy makers to recognize the source and impact of academic stress. This understanding makes educators and policymakers helpful involvements to promote a healthier learning environment.

According to **Richard Lazarus (1966)**, "Stress is a relationship between the person and the environment that is appraised as taxing or exceeding the person's resources and endangering their well-being."

Hans Selye (1974) described stress as "a response of the body to certain demand that is made on it and he further stated that this response was nonspecific."

American Psychological Association (APA) defined stress as "the physiological or psychological response to internal or external stressors."

World Health Organization (WHO) said about stress that, "Stress can be defined as a state of worry or mental tension caused by a difficult situation."

2. Literature Review:

Several researchers have examined the relationship between stress and academic achievements. Studies by **Hans Selye (1956)** emphasized that prolonged stress can influence both physical and psychological functioning. **Khanekheshi and Basavarajappa (2011)** found that academic stress showed a simple significant correlation with depression ($r = 0.49$) and academic performance ($r = -0.44$). Study by **D. Rajasekar (2013)** found that management students experienced academic stress due to various physical, psychological, environmental, personal factors and also for academic pressure, expectations, workload and adjustment with the institutional environment. **Pozos et al. (2014)** found that in university students, circumstances that related to classroom involvement, obligatory work and semester examination were predicting elevated level chronic stress and 18, 23 and 25 years of age and being a female student were related to the most part of stress. Study on medical students by **Siraj et al. (2014)** showed that 84% respondents were under severe stress and 76% of respondents considered stress positive and agreed that stress motivated them for better academic performance. **Sharma et al. (2016)** suggested numerous techniques and one physical activity each day to reduce stress and also proposed universities to have a relaxed atmosphere to reduce stress. **Dimitrov (2017)** asserted that stress of the students can be reduced by ensuring their welfare by providing proper food, exercise, job and leisure. **Prifti & Rapti (2018)** study showed that the students are subject to stress because of the transitional nature of the higher education program adjustment. **Oketch-Oboth & Okunya (2018)** study at the University of Nairobi showed that there is a significant relationship with academic performance, which means the greater the stress, the less the academic achievement. Study by **Kumar & Gaur (2019)** highlighted the negative impact of academic stress on students' academic achievement. **Sing (2022)** found a significant negative relationship between academic achievement and academic stress among secondary school study and also a significant positive relationship between academic achievement and achievement motivation among secondary school students. Study conducted by **Gobena G.A. (2024)** showed that academic stress negatively affected students through absenteeism, reduced academic morale, chewing khat, and failure to complete assignments on time.

2.1 Research Gap:

Although many studies have observed the stress and academic achievement among the students, but most of the studies were done on secondary students or higher secondary students or undergraduate students. There were very few studies which highlights stress and academic achievement of post graduate students. So, it's needed to do research on stress and academic achievement of post graduate students.

2.2 Problem of The Study:

So, the problem of the study is “**Stress and Academic Achievement of Postgraduate Students.**”

2.2 Objectives of The Study:

The objectives of the study are-

- a. To analyse the stress level among PG students.
- b. To examine the relationship between stress and academic achievement of postgraduate students.
- c. To determine the difference of stress level based on gender and territory.
- d. To determine the difference of academic achievement based on gender and territory.

3. Methodology:

3.1 Research Design:

The study adopts a descriptive research design and survey method has been used to collect data.

3.2 Sampling:

287 PG students who have completed at-least one semester from different universities of Nadia district have been selected as sample by simple random sampling technique.

3.3 Variables of the Study:

There are only two variable – i. Stress (Independent Variable) and ii. Academic Achievement (Dependent Variable).

3.4 Tools Used for Data Collection:

A 5-point Likert Scale, self-structured standardized questionnaire and academic record cards of the PG students have been used to collect data.

3.5 Hypothesis of The Study:

H01: There is no significant relationship between stress and academic achievement of postgraduate students.

H02: There is no significant mean difference in stress level between male and female postgraduate students.

H03: There is no significant mean difference in stress level between urban and rural postgraduate students.

H04: There is no significant mean difference in academic achievement between female and male postgraduate students.

H05: There is no significant mean difference in academic achievement between urban and rural postgraduate students.

3.6 Data Collection Procedure:

Data for the study have been collected by providing questionnaire by mentioning the purpose of the research to the participants. Confidentiality of the responses, anonymity and voluntary participation have been ensured throughout the process.

3.7 Statistical Techniques:

Descriptive Statistics (mean, median, mode and standard deviation), Pearson’s Correlation Analysis, Inferential Statistics ‘t-test’ and Regression Analysis have been used to analysis all the data.

3.8 Data Analysis , Result and Discussion:

3.8.1 Data Analysis:

Table 1: Statistical Analysis of Stress and Academic Achievements of PG Students

Group	df	Standard Error	Correlation (r-value)	Correlation (r-value)	P-value	Interpretation
Stress	285	0.00	1	-0.035	0.54	Null hypothesis accepted
Academic Achievement			-0.035	1		

The table shows that the r-value is -0.035 which suggests a very weak negative correlation and with the p-value of 0.54, which is greater than 0.05 significance level, means we can’t reject the null hypothesis and the correlation is not statistically significant.

Table 2: Statistical Analysis of Male and Female PG Students’ Stress Level

Group	Number	Mean	SD	df	Calculated t-value	Critical t-value	Levels Of Significance	Interpretation
Male	99	194.83	23.91	285	0.57	1.97	0.05=1.96	Null Hypothesis
Female	188	196.48	21.53				0.01=2.58	Accepted

The table reveals that the calculated t-value is 0.57 which is smaller than the critical t-value 1.97 at df 285 which is not significant at 0.05 and 0.01 significance level, means the null hypothesis should be accepted and there is no significant mean difference had been found.

Table 3: Statistical Analysis of Urban and Rural PG Students’ Stress Level

Group	Number	Mean	SD	df	Calculated t-value	Critical t-value	Levels Of Significance	Interpretation
Urban	108	192.52	20.81	285	0.99	1.97	0.05=1.96	Null Hypothesis
Rural	179	197.96	23.06				0.01=2.58	Accepted

The table reveals that the calculated t-value is 0.99 which is smaller than the critical t-value 1.97 at df 285 which is not significant at 0.05 and 0.01 significance level, means the null hypothesis should be accepted and there is no significant mean difference had been found.

Table 4: Statistical Analysis of Female and Male PG Students’ Academic Achievement

Group	Number	Mean	SD	df	Calculated t-value	Critical t-value	Levels Of Significance	Interpretation
Female	188	76%	0.08	285	0.33	1.97	0.05=1.96	Null Hypothesis
Male	99	75%	0.11				0.01=2.58	Accepted

The table reveals that the calculated t-value is 0.33 which is smaller than the critical t-value 1.97 at df 285 which is not significant at 0.05 and 0.01 significance level, means the null hypothesis should be accepted and there is no significant mean difference had been found.

Table 5: Statistical Analysis of Urban and Rural PG Students’ Academic Achievement

Group	Number	Mean	SD	df	Calculated t-value	Critical t-value	Levels Of Significance	Interpretation
Urban	108	76%	0.10	285	1.00	1.97	0.05=1.96	Null Hypothesis
Rural	179	75%	0.09				0.01=2.58	Accepted

The table reveals that the calculated t-value is 1.00 which is smaller than the critical t-value 1.97 at df 285 which is not significant at 0.05 and 0.01 significance level, means the null hypothesis should be accepted and there is no significant mean difference had been found.

3.8.2 Result and Discussion:

Result:

- Based on the calculation of Table-1 it has been found out that there is no significant relationship between stress and academic achievement of PG students.
- Based on the calculation of Table-2 and Table-3 respectively it has been found out that there is no significant mean difference in stress level between male and female PG students as well as the urban and rural PG students.
- Based on the calculation of Table-4 and Table-5 respectively it has been found out that there is no significant mean difference in academic achievement between male and female PG students as well as the urban and rural PG students.

Discussion:

- According to the present investigation the result of Table-1 suggests that stress doesn't affect the academic achievement of the PG students.
- Based on the present investigation, the results of Table-2 and Table-3 respectively reveal that the level of stress is similar between male and female postgraduate students as well as between urban and rural postgraduate students.
- Based on the present investigation, the results of Table-4 and Table-5 respectively reveal that the quality of academic achievement is similar between male and female postgraduate students as well as between urban and rural postgraduate students.

4. Conclusion:

Based on the findings of the present study on Stress and Academic Achievement of Postgraduate Students, it can be decided that there is no significant relationship between stress and academic achievement among postgraduate students. Further analyses showed that there is no significant mean difference in stress of male and female or urban and rural students, even in the field of academic achievement no mean differences had been found between male and female or urban and rural PG students. By the overall observation it can be said that stress doesn't directly affect the academic performance of postgraduate students and also the male and female or urban or rural PG students are equally capable to manage their stress and maintain their academic achievement.

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