



A Study of the Impact of Examination Stress on Academic Achievement of Students of Higher Education

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ABSTRACT

The high level of stress during examination is not only the result of student's aspiration or parental expectation, the archaic and disgraceful examination system for higher education is equally responsible for it. The stress is often on testing the student's memory and rote learning. A careful memorizing of answers to questions posed in the three previous years (excluding the immediate past year) will guarantee high grades. Analytical skills, application of knowledge, problem-solving capacity and innovation are rarely tested. There is no stress on continuous appraisal and the student is only judged by his/her performance in a single final examination. There is an absolute disconnect between what is taught in the class and what is tested. One would imagine that the teacher who teaches the course is best suited to evaluate a student's performance in that course. But in the current system, a completely disconnected evaluator sitting somewhere else grades the student's exam.

A dearth of studies on relationship between examination stress and academic achievement among higher student was found and that is the rationale behind taking this study to focus on college students. The primary goal of this paper is to examine how academic stress affects secondary students. It should be of interest for education policy makers in India to enhance their understanding of Indian students' examination stress and anxiety and to develop ideas about how to best utilize and manage the education system to promote the optimum academic performance and emotional development of students in India.

Keywords: Stress, Academic Achivement, Academic Stress, and emotional development

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Stress is defined as a state of psychological arousal that results when external demands tax or exceed a person's adaptive abilities (Lazarus, 1966; Lazarus and Folkman, 1984). In the present study stress refers to physical stress, social, economical and political stress, family stress and job and career stress. A mild degree of stress and strain can sometimes be beneficial. For example, feeling mildly stressed when carrying out a project or assignment often compels us to do a good job, focus better and work energetically. But if the students feel intense stress before and during examination, it has consequences for mental health and somatic symptoms (Lee & Larson, 2000; Verma & Gupta, 1990). As per the report of Banerjee's (2001), every year about 25,000 students in the age group of 18 to 20 years commit suicide during the examination month (i.e. March to June). Due to high examination stress, students spent less time in socializing and get engaged in passive and active leisure which may further magnify the effects of examination stress (Lee and Larson, 2000).

Good (1945) defines academic achievement as, "knowledge attained or skills developed in the colleges subjects, usually designed by test scores or by marks assigned by teachers, or by both". In the present study academic achievement refers to the marks obtained by the third year college students in their annual examinations of Nehru Gram Bharti University.

Education is critical for economic and social development. It is crucial for building human capabilities and for opening opportunities. Without education, development can neither be broad based nor sustained. Recognizing the vital contribution of education to development, the government of India accorded due priority to education after independence and set the targets of providing access and equity at all level of education. But due to constitutional obligation of universalization of elementary education and emphasis led by international community on "Education For All" (EFA), elementary stage of education got highest priority in government's policies and programs.

The second priority has been given to develop higher education system. Elementary education creates the foundation for further learning whereas the importance of secondary education lies in the fact that it forms a link between elementary education and higher education. But higher education system adds real value to human resources, and produce wealth creators and leaders in all fields – business, professions, politics, administration, and creative pursuits.

Over the past seven decades, India made impressive strides in the field of higher education. The quality of the bulk of our graduates is appalling. The students are doing their best – they are studious and disciplined, they cram, clear entrance tests, pass examinations, and obtain degrees. But there is other side of this scenario where, many university graduates do not have even rudimentary knowledge, conceptual understanding, or problem-solving skills in their own discipline. A culture of rote learning, lack of application of knowledge, and a poor examination system have undermined our higher education. Most graduates lack basic communication skills, and have no problem solving capacity. Educated unemployment is on

the rise, largely because most graduates cannot promote wealth creation and are therefore unemployable.

Another fact related to students of higher education is the extreme pressure they feel as a result of cut throat competition for survival of the fittest. Everyone wants good grades in fact outstanding grades, necessary to excel in today's competitive professional world. Not only students but parents, teacher's expectations from their children have also been influenced by this trend. They expect higher grades from their children and put pressure on them to perform better. The success of students is decided by their examination score rather than the knowledge or skill they acquire. It is generally believed that a fair amount of examination stress is beneficial for academic success but sometimes excess of it may lead to anxiety, depression, examination phobia and many other psychological problems among students.

The high level of stress during examination is not only the result of student's aspiration or parental expectation, the archaic and disgraceful examination system for higher education is equally responsible for it. The stress is often on testing the student's memory and rote learning. A careful memorizing of answers to questions posed in the three previous years (excluding the immediate past year) will guarantee high grades. Analytical skills, application of knowledge, problem-solving capacity and innovation are rarely tested. There is no stress on continuous appraisal and the student is only judged by his/her performance in a single final examination. There is an absolute disconnect between what is taught in the class and what is tested. One would imagine that the teacher who teaches the course is best suited to evaluate a student's performance in that course. But in the current system, a completely disconnected evaluator sitting somewhere else grades the student's exam.

Although, there are many researches on relationship between examination stress and academic achievement adolescents. But they are mostly related to high school students. A dearth of studies on relationship between examination stress and academic achievement among secondary student was found and that is the rationale behind taking this study to focus on college students. The primary goal of this paper is to examine how academic stress affects college students. It should be of interest for education policy makers in India to enhance their understanding of Indian students' examination stress and anxiety and to develop ideas about how to best utilize and manage the education system to promote the optimum academic performance and emotional development of students in India.

Objectives of the Study

1. To investigate the relationship between stress and academic achievement of secondary school students.
2. To compare the stress levels of male and female secondary school students.

3. To compare the academic achievements of male and female secondary school students.
4. To compare the academic achievements of students having less, moderate and high stress.

Research Hypothesis

The following null hypotheses were tested in the study:

- ❖ There exists no significant relationship between stress and academic achievement of secondary school students.
- ❖ There exists no significant difference in the stress levels of male and female secondary schools students.
- ❖ There is no significant difference in the academic achievements of male and female secondary school students.

There exists **Method used in the study:**

The nature of problems determines the appropriateness of method to be used in any research work. The present research attempt to study about the impact of Examination Stress on Academic Achievement of Secondary School Students. Due to the nature of the problem and objective survey method of descriptive research have been used to conduct the study.

Population

A population refers to any collection of specified group of human beings or non-human entities such as objects, educational institutions, time units, geographical areas, prices of wheat or salaries drawn by individuals. Some statisticians call it universe. The population of this study comprises of all secondary schools affiliated by U.P. Board.

Sample

Most of the educational phenomena consist of a large number of unit. It would be impracticable to test, to interview or observe each unit of the population under controlled conditions in order to arrive at principles having universal validity. Some populations are so large that their study would be expensive in term of time, money, effort and manpower. Sampling is the process by which a relatively small number of individuals or measures of individuals, objects or events is selected and analyzed in order to find out something about the entire population from which it was selected. It helps to reduce expenditure, save time and energy, permit measurement of greater scope, or produce greater precision and accuracy. Sampling procedures provide generalizations on the basis of relatively small proportion of the population.

The representative proportion of the population is called a sample. To obtain a representative sample, the researcher selects each unit in the specified way under controlled conditions.

The study will be conducted in secondary schools affiliated by U.P. Board of Allahabad city, India. Using stratified sampling method, from all schools in Allahabad city, 100 students will be selected.

Tool used

Tools pave the way of accomplishment of the objectives of a study and the collection of relevant data. The selection of a tool for particular study depends upon various considerations such as the objective of the study, the amount of time at disposal of the researcher, facility of the researcher, techniques of scoring and interpretation etc. The investigator used the educational stress scale prepared by Prof K.S. Mishra to measure stress of students.

Analysis & Interpretation

1. To investigate the relationship between Examination stress and academic achievement of secondary school students.

The purpose of data analysis is to reduce data into examination stress and academic achievement form in order to obtain answers to research questions and to test research hypothesis.

Table 1: Correlation between Examination stress and academic achievement of secondary school students

Correlation Coefficient between Examination Stress and academic achievement	df (N-2)	Level of Significance	
		0.05	0.01
$r = -0.3277$	98	.195	.254

It was hypothesized that there is no significant relationship between examination stress and academic achievement scores of secondary school students.

The obtained value of correlation coefficient is -0.3277 , which depicts high correlation and it is more than the value of correlation coefficient required for significance at $df=98$. Therefore, this value is significant and null hypothesis can be accepted at 0.05 & 0.01 level.

It means that there is relationship between the examination stress of secondary school students and academic achievement scores.

2. Analysis and interpretation of the comparison of the examination stress levels of male and female secondary school students.

The description of the data related to the mean, standard deviation and t-score of the examination stress levels of male and female secondary school students is given in the table 2.

Table 2: Mean, standard deviation and t-score of the examination stress levels of male and female secondary school students

Sl. No.	Group	N	M	SD	D ($M_1 \sim M_2$)	t-score		Significance level
						Calculate value	Table value	
1	Male	50	15.68	8.69	6.30	1.81	3.47	0.50 significance level dt. = 98
2	Female	50	21.98	9.44				
Conclusion					$H_0 : m_1 - m_2 = 0$ Rejected at .05 level of significance. $H_0 : m_1 - m_2 \neq 0$ Accepted at .05 level of significance.			

Explanation:-

From the observation of table 2 it is found that the examination stress of male students with mean 15.68 and standard deviation 8.69 and examination stress of female students with mean 21.98 and standard deviation 9.44. The calculation t-value is 3.47 and t-value is 1.98. Since the calculated t = value is greater than the t-value, hence 0.05 significance level the null hypothesis is rejected.

For the fulfillment of the objective No. 2, it is hypothesized that “There is significant difference in the examination stress levels of male and female secondary schools students”, is accepted at the 0.05 significance level and the null hypothesis “there is no significant difference in the examination stress levels of male and female secondary schools students” is rejected.

So, it can be inferred that female students experience high level examination stress than male students.

3. Analysis and interpretation of the comparison of the academic achievement levels of male and female secondary school students.

The description of the data related to the mean, standard deviation and t-score of the academic achievement levels of male and female secondary school students is given in the table 3.

Table 3: Mean, standard deviation and t-score of the academic achievement levels of male and female secondary school students

Sl. No.	Group	N	M	SD	D ($M_1 \sim M_2$)	t-score		Significance level
						Calculate value	Table value	
1	Male	50	359.16	72.60	29.4	13.90	2.11	0.50 significance level dt. = 98
2	Female	50	388.56	66.34				
Conclusion					$H_0 : m_1 - m_2 = 0$ Rejected at .05 level of significance. $H_0 : m_1 - m_2 \neq 0$ Accepted at .05 level of significance.			

Explanation

From the observation of table 3 it is found that the academic achievement of male students with mean 359.16 and standard deviation 72.60 and academic achievement of female students with mean 388.56 and standard deviation 66.34. The calculated t-value is 2.11 and t-value is 1.98. Since, the calculate t = value is greater than the t-value hence 0.05 significance level the null hypothesis is rejected.

For the fulfillment of the objective No. 3 it is hypothesized that “There is significant difference in the academic achievement levels of male and female secondary schools students” is accepted at the 0.05 significance level and the null hypothesis “there is no significant difference in the academic achievement levels of male and female secondary schools students” is rejected.

So, it can be inferred that female students are high on academic achievement of than male students.

4. To compare the academic achievements of students having less, moderate and high stress.

Table 4: Summary of results of ANOVA showing differences in academic achievements of students having less, moderate and high examination stress

Sources	df	Sum of squares	Mean square	F-ratio
Between the group	2	31911.73	15955.86	3.37*
Within the group	98	463660.31	4731.23	
Total	100	495572.04	20687.09	

* Significant at .05 level.

Table 4 shows that the value of F-ratio (=3.37) is significant at .05 level. So, the null hypothesis can be rejected. It means that secondary school students with high, moderate and low levels of academic achievements differ from one another on examination stress. Further analysis has been done by using Tukey HSD Test.

Table 4.1: Results of Tukey HSD Test showing differences in examination stress of secondary school students with low, moderate and high levels of examination stress

Group	Levels of stress	Mean	Group compared	Difference between mean
1	Low	391.46	1-2	11.96*
2	Moderate	379.50	1-3	46.54*
3	High	344.92	2-3	34.58*

* Significant at .05 level.

Table 4.1 shows that mean total academic achievement scores for secondary schools students with low, moderate and high stress are 391.46, 379.50 and 344.92 respectively. Significant paired comparisons show that as compared to secondary school students with low examination stress, secondary school students with low examination stress have better academic achievement. Secondary school students with low and moderate examination stress do differ significantly from secondary school students with high examination stress on total academic achievement.

Findings

The findings of the present study are as following:

- ❖ There is negative relationship between the examination stress and academic achievement scores of secondary school students.
- ❖ There is significant difference in the examination stress levels of male and female secondary schools students or female students are highly affected by examination stress than male students.
- ❖ There is significant difference in the academic achievement levels of male and female secondary schools students or female students are high on academic achievement than male students.
- ❖ Secondary school students with low and moderate examination stress do differ significantly from secondary school students with high examination stress on total academic achievement.

Educational Implication

These findings have practical implications for parents, teachers, educational planners, and of course for students. Students can rest assured that there is a positive relationship between stress and academic achievement. Teachers can understand that stress has a positive impact on a students' academic achievement and stress does not always correlate academic achievement negatively. Parents should be aware of the fact that few related areas of stress are essential for the better performance of their children. Stress related to career and job matter may not be as harmful in this context. Parents should identify level of stress of their children and should treat them accordingly. Parents should motivate them to read newspapers, magazine etc. in order to utilize their energy and to give them positive direction in relation to academics. Parents should inspire their children to develop self-discipline and balance state of mind. Teacher should arouse curiosity and interest among students. It depends on the teacher's efficiency that how a stressed student can achieve more in the examination. Teachers should not be over concerned of students' academic life. Instead they should help the students to remain concerned on their academic matter seriously. Teacher should maintain discipline and should not give unnecessary leniency to students, so that students take required stress or expectation

from themselves in relation to their academic matters. Guidance services should be provided to develop confidence among students for better adjustment in classroom, family and society, to use their potential and talents which would help to achieve success in life. There should be adequate planning in academic work such that there would be enough intervals between the periods of examinations and continuous assessment tests.

The current research was conducted to identify the impact of stress on student's academic performance at secondary school level and removal thereof among them is biggest price of success. Stress scores equal effect among male and female students. Findings of this study show that the teacher can play a vital role in removing student's academic stress. To minimize the effect of students' academic performance in secondary schools, all concerned have to work on the issue seriously. The teachers should provide good teaching methodologies to enhance the learning skills and ideas for students. Seminars and workshops should be convened so that traditional as well as modern ways of teaching be explored. The teachers should not put the students under pressure for tuition. The teacher should provide proper guidelines about exams and tests. Parent and other family members have key role in student academic performance.

Parents should provide all necessities of the school and also to keep check and balance of their children's educational and non-educational activities. The possible gap between teachers and students may try to cover by calling the Parents' meeting regularly especially once in a month. Some period must be set out in which teachers and students may have non-educational activities in order to cover the gap as well as to know that the teachers are also their well-wishers. In addition, parents should help their children with homework. At home, parents should check the schoolwork of their children to give an impression to sort-out the difficulties being faced by them during learning process. Qualified, experienced, well-behaved and skilled teachers are the main source to guarantee the input of quality of education. The students must be aware of the relevant topics while taking examinations and tests actively and efficiently. The parents and teachers should play an important role in a student's life for setting a realistic role for future practical as well as domestic life in order to be a successful and well trained individual.

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