



A STUDY OF ACADEMIC STRESS AND ACADEMIC PERFORMANCE OF SENIOR SECONDARY SCHOOL STUDENTS IN RELATION TO THEIR GENDER

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Abstract

Adolescence is the most crucial stage of a student's life as at this stage, the students become very cautious and remain anxious for their academic achievements and performances. For some students, academic stress may raise the achievement but may deteriorate another's performance and achievement level at the same time. The purpose of the present investigation was to explore the comparison and relationship regarding academic stress and academic performance of Senior Secondary Students in relation to their gender. 324 adolescents were selected randomly from Senior Secondary Schools of Rohtak city to consider as sample of the present study. To ascertain the academic stress level of the sample, the Academic Stress Scale developed by Kim (1970) and adopted by Rajendran and Kaliappan (1990) and Rao (2012) was administered to the senior secondary school students. The statistical techniques Mean, SD, Q-Q Plot, 't-test' and Pearson Product Moment Correlation (r) were applied for analyzing the collected data. The findings of the study revealed a significant difference in academic stress of senior secondary school students in relation to their gender. Girls were found to be more stressed academically than boys. The present study also explored an inverse but statistically significant correlation between academic stress and academic performance of the students. Hence, it can be stated that academic stress influences academic performance, which finally affects achievement levels of students.



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Introduction

We all are living in such a competitive world where stress is an essential condition of life. Various type of pressures, responsibilities, compulsions and commitments bring changes and coping with above all becomes challenge in the life and finally stress occurs. In the words of Cohen & Herbert, (1996), "Stress is an experience that evokes a variety of responses, including those that are physiological (e.g., accelerated heart rate, headaches, or gastrointestinal problems), cognitive (e.g., difficulty concentrating or making decisions), and behavioral (e.g., drinking alcohol, smoking, or taking actions directed at eliminating the cause of the stress). Although stress can be positive at times, it can have deleterious health implications, contributing to the onset and progression of a variety of physical illnesses and diseases". Any kind of stress either, ustress (good stress) or distress (bad stress), if not taken

care with in time and occurs rapidly, finally affect our well-being and health adversely. Although this new digitalized era has made things easier and comfortable but at the same time a person's mental health is being affected due to over occupying schedule, causing stress lastly. Lazarus & Folkman, (1984), "A person's response towards stress depends on whether an event is appraised as a challenge or a threat." A same stressful situation can be motivator or booster for one person but can be harmful and depressive for another, depending on circumstances.

Katyal & Vasudeva, (1998) stated that, "In the present era the phenomenon of stress is not confined to adults alone but also affects children and adolescents." Stress influences everyone irrespective of age, color, caste, sex or creed. It sounds paradoxical but adolescent stage is said to be the stage of 'stress and storm' and 'golden age' as well of complete life span. It is a vital stage of growth and development and the body goes through various physical and biological changes. Key life events, behavioural and physical manifestations, and social attributions are hallmarks during this period (Brown, Larson & Saraswathi, 2002; Dasen, 2000). The adolescent stage becomes a crucial period that makes students highly vulnerable to the various stressors in the environment. According to Goodman, (1993), "Stressors affecting students can be categorized as academic, financial, time or health related and self imposed." Rex Forehand et al, (1991) found that, "Stress in family like divorce, intrapersonal conflicts and maternal depression leads to stress in the adolescents who deteriorates functioning". Sgan-Cohen & Lowental, (1988) stated that, "In addition to academic requirements relations with faculty members and time pressure can also be the source of stress." At this stage most influential stress is academic stress which also affects academic performance.

Academic stress can be defined as the pressure to accomplish and achieve better, may it be in normal routine classes, in the final school examinations or the various competitive college entrance examinations. In present society, emerging new social and academic demands enforce adolescents to play diversified roles involving more sincerity and answerability. Wilks, (2008) explained that, "Academic stress is the product of a combination of academic-related demands that exceed the adaptive resources available to an individual". Whereas, Hussain, Kumar, & Husain, (2008), defined, "Academic stress is a concern that must not be taken for granted because it adversely affects the overall adjustment of students". Hess & Copeland in 2006 reported that, "during the school years, academic stressors may show in

any aspect of the child's environment: home, school, neighbourhood, or friendship." Fairbrother & Warn, (2003), have long been researched on, "academic stress among students and identified stressors as too many assignments, competitions with other students, failures and poor relationships with other students or lecturers." Erkutlu & Chafra, (2006) reported that, "the pressure to perform well in the examination or test and time allocated makes academic environment very stressful." Kouzma and Kennedy (2004) reported that, "school-related situations – such as tests, grades, studying, self-imposed need to succeed, as well as that induced by others – are the main sources of stress for high school students". It is imperative for any society for its own development and upliftment that the students and citizens may learn and attain the essential knowledge and proficiencies so that they may contribute positively.

It is the late adolescent stage in an individuals' life when one has to gain the enriching landmarks, which may be responsible for success in upcoming life. Being the crucial stage of life, the choice of academic career needs the assurance of vocational choice, emotional freedom, maintenance of social associations outside the family and educational proficiency. Academic performance refers to the "level of performance in school, accomplishment or success in school". By exhaling in academic achievements from their counterparts, students get admission in better professional courses. In this knowledge explosive society, educational achievement has become a key of child's success in future. Society and parents lay strong emphasis on educational accomplishment. Hansen, (2000) reported that, "Students performance is affected by different factors such as learning abilities, gender and race." Naqvi (2006) concluded that, "attitude towards attendance in classes, time allocation for studies, parents' level of income and educational level of parents affect performance of students." Now a days, parents are so conscious regarding the performance of their child even at nursery level, create pressure on their children to do extremely well and to outshine and to get top grades in academic excellence. In spite of industriousness, when any student lacks confidence and efficacies to meet the expected outcomes, becomes stressed and under such kind of stress he/she may commit suicide as he/she finds him/herself not able to bear the pressure of preparation for examination and producing the expected outcomes.

Significance of the study

Agarwal et.al (2007) stated, "Adolescence stage is a crucial period of the life, the onset of psychological disorders may be fast." Stress as a psychological disorder is tightening its grip

on the adolescents as they have to go through cut throat competitions at each level of their educational career by keeping them in the pace with this information loaded society. Academic stress among adolescents has become an important topic of discussion in academic spheres. It's a fact that academic achievement is not the only true measure of success in the working world but good grades and academic achievements do affect a student's life, that's why the student him/herself try to get good academic grades as to have more and various career choices. Schools and parents both try hard to foster good academic habits of the students in order to raise their academic performance and further to ensure a successful life ahead. In academic pursuit, students become the victim of stress due to pressure of performing better and following deadlines of projects and assignments, scoring more marks and higher grades than their counterparts. While choosing the career and entering in the real competitive world, the shadow of academic stress creates pressure on the adolescent students. Therefore, students get confused, lack concentration and sometimes totally blanked out. They suffer from anxiety, think negatively, fear failure, experience feeling of inadequacy and compare themselves unfavorably to others. There is a need to understand the mental pressures at senior secondary levels as it is seen that the students keep enforcing pressure for educational performances as they have to sit for various competitive exams. By comprehending the mental status of students, the academicians will be able to provide suggestions, recommendations and counseling sessions to parents and concerned teachers to overcome the academic stress which will help in the better development of the students in future. Thus, the present investigators visualized a need to study academic stress and academic performance of the senior secondary school students in relation to their gender.

Objectives

- To study Academic Stress and Academic Performance of the Senior Secondary School Students in relation to their Gender.
- To compare Academic Stress of Senior Secondary School Students in relation to their Gender.
- To compare Academic Performance of Senior Secondary School Students in relation to their Gender.

Hypotheses

Ho1. There exists no significant relationship between Academic Stress and Academic Performance of the Senior Secondary School Students in relation to their Gender.

Ho2. There exists no significant difference between Academic Stress of Senior Secondary School Students in relation to their Gender.

Ho3. There exists no significant difference between Academic Performances of Senior Secondary School Students in relation to their Gender.

Methodology

The present study is a normative survey of descriptive research in nature. This study was undertaken to study academic stress of senior secondary school students in relation to their gender.

Population and Sample

All the students of class XI of Senior Secondary School in Rohtak District, Haryana, affiliated to CBSE were considered as the population of this study. From this population, 324 (162 boys and 162 girls) students of class XI, were randomly selected as the sample of the study from eight Govt. Senior Secondary Schools.

Variables

- **Independent variable:** Academic stress.
- **Dependent variable:** Academic Performance.
- **Demographic variable:** Gender of the students

Tools used

The Academic Stress Scale consisted of forty items developed by Kim (1970) and adopted by Rajendran and Kaliappan (1990) and Rao (2012) for Indian culture was adopted in this research. The marks scored by the students in their Matriculation Examination were taken as their Academic Performance for the present study.

Statistical Techniques used

The statistical techniques Mean, SD, Q-Q Plot, 't-test' and Pearson Product Moment Correlation (r) were applied for analyzing the collected data.

Analysis and Interpretation of the Data

Table1: ‘Descriptive statistics of Academic Stress and Academic Performance of the total Sample’

Descriptives

	Academic Stress	Academic Performance
Mean	81.08	75.99
<i>Std. Error</i>	.256	.240
Median	82.00	76.00
Variance	21.16	18.62
SD	4.60	4.31
Skewness	.290	-.132
<i>Std. Error</i>	.135	.135
Kurtosis.	.451	2.738
<i>Std. Error</i>	.270	.270

In the Table 1, the descriptive statistics of academic stress (M = 81.02, SD = 4.60) and academic performance (M = 75.99, SD = 4.31) were presented. Besides, the following Q-Q Plot for the scores of academic stress (Figure 1) and academic performance (Figure 2) were presented which clearly show the normality of the distributions.

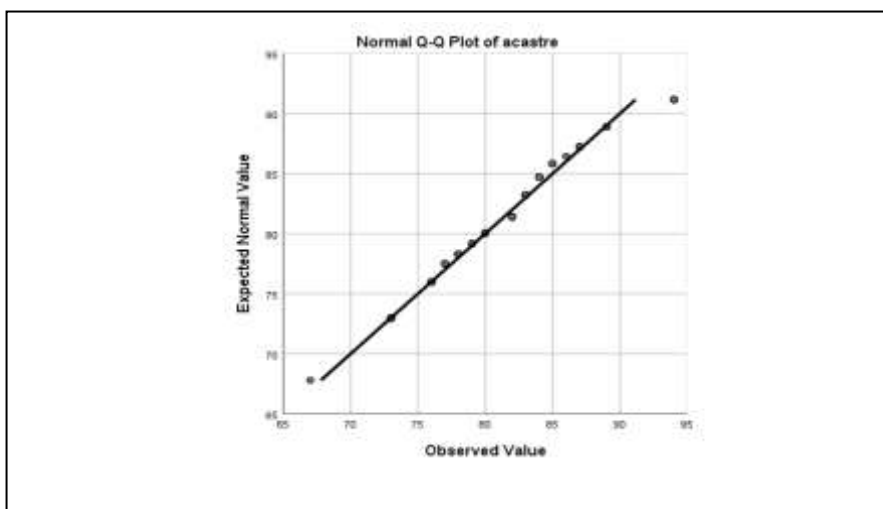


Figure1 : ‘Normal Q-Q plot of Academic Stress’

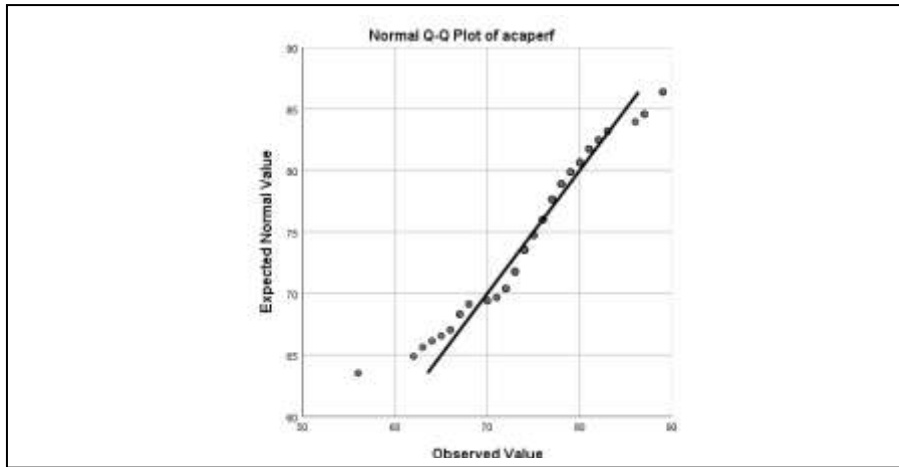


Figure 2: ‘Normal Q-Q Plot of academic Performance’

Analysis pertaining to null hypothesis 1:

Ho1: There exists no significant relationship between Academic Stress and Academic Performance of the Senior Secondary School Students in relation to their Gender.

Table2: ‘Descriptive statistics of academic stress and academic performance of total sample’

Correlations

		Academic Performance	
Total sample (N=324)	Academic Stress	Pearson r	-.251**
		Sig.(2-tailed)	.000
		N	324
Male (N=162)		Pearson r	-.194*
		Sig.(2-tailed)	.013
		N	162
Female (N=162)		Pearson r	-.155*
		Sig.(2-tailed)	.049
		N	162

** significant at the 0.01 level (2-tailed).

Table 2 reveals that Academic Stress and Academic Performance of the total sample is negatively correlated ($r = -.251, p < 0.001$) and the relation is weak and statistically significant. In case of male students, a significant negative weak correlation at 0.05 level ($r = -.194, p < 0.05$) between academic performance and academic stress was found. On the other hand, in case of female students, a significant negative weak correlation at 0.05 level ($r = -.155, p < 0.05$) was found between academic performance and academic stress. Hence, it may

be interpreted that the correlation of academic stress and academic performance are negative and statistically significant at 0.05 level. Therefore, the null hypothesis Ho1 was rejected.

Analysis pertaining to null hypothesis 2:

Ho2. There exists no significant difference between Academic Stress of Senior Secondary School Students in relation to their Gender.

Table3: ‘Presentation of Descriptive statistics of Academic Stress’

Group Statistics

	Gender	N	Mean	SD	SEM
Academic stress	Male	162	78.91	3.80	.299
	Female	162	83.25	4.30	.338

Table4: ‘Result of independent samples test for the academic stress of male and female students. Independent Samples Test’

“t-test for Equality of Means”

	‘t’	df	Sig.(2-tailed)	Mean difference	SED
Academic stress	-9.618	322	.000	-4.340	.451

Table 3 shows that female students scored higher (M = 83.25, SD = 4.30, N = 162) in academic stress than their male counterparts (M = 78.91, SD = 3.80, N = 162). The independent samples t-test was used to explore out the statistical significance of the difference between academic stress of male and female students and it was explored from the Table 4, that the t value = -9.618, p< 0.001 is significant. Hence, the null hypothesis (Ho2) that there exists a significant difference in academic stress of senior secondary school students in relation to their gender stands rejected.

Analysis pertaining to null hypothesis 3:

Ho3: There exists no significant difference between Academic Performances of Senior Secondary School Students in relation to their Gender.

Table 5: ‘Presentation of descriptive statistics of Academic Performance’

	Gender	N	Mean	SD	SEM
Academic Performance	Male	162	76.93	4.03	.317
	Female	162	75.06	4.40	.346

Table6: ‘Result of independent samples test for the Academic Performance of male and female students. Independent Samples Test’

“t-test for Equality of Means”

	‘t’	df	Sig. (2-tailed)	Mean difference	SED
Academic Performance	3.99	322	.000	1.870	.469

Table 5 shows that male students scored higher (M = 76.93, SD = 4.03, N = 162) in academic performance than female students (M = 75.06, SD = 4.40, N = 162). The independent samples t test was applied to determine the statistical significance of the difference between academic performance of male and female students and it was found from the Table 6, that the t value = 3.99, $p < 0.01$ is significant. Hence, the null hypothesis (Ho3) that there exists no significant difference in academic performance of senior secondary school students in relation to their gender stands rejected.

Discussion and Conclusion

Adolescence is the most crucial period of our life span, as at this stage our personality, attitude, aptitude etc. start taking a final shape. Adolescence is a phase of development in which transformation and growth is an ongoing process (Gullotta, Plant & Evans, 2015). About adolescent stage, Broderick & Metz (2009) stated that, “This is the period of growth spurt where maximum changes can be observed in an individual as compared to the other phases of life”. Today’s world is information overloaded and adolescents face academic stress to cope with fast growing knowledge. The present study was attempted to find out the comparison and relationship regarding academic stress and academic performance among Senior Secondary Students on the basis of gender. A significant difference was explored in academic stress of senior secondary school students in relation to their gender. Girls were found to have more academic stress than boys and study conducted by Singh and Upadhyay (2008) also revealed the similar results, where as Agarwal (2011) and Prabu (2015) explored that male students perceived more academic stress in comparison of their female

counterparts. The findings of the present study were also supported by Supe et.al. (2002) who explored a significant difference in academic performance of ninth graders with regard to gender. The present study explored a negative and statistically significant correlation between academic stress and academic performance of the senior secondary school students and similar results were found by Malik and Balda (2006), Sohail (2013), Bharti (2013) and Alam & Halder (2018) in their studies. As the relation between academic stress and academic performance is found in-verse in nature, hence, it can be stated that academic stress influences academic performance, which finally affects achievement levels of students.

In present scenario of high knowledge explosion, students have a dire need to remain updated with latest information to cope with academic stress. Academic stress is the part of an adolescent's life, which influences not only his academic performance but his life achievements also. So, academic programmes including interactive sessions, workshops, conference and co-curricular activities etc. should be enhanced for the reducing the academic stress among adolescents. It is also suggested that future research studies be conducted considering locality, supervision style and self-efficacy to investigate the educational stress and scholarly performance of students at adolescent stage.

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