

# **Relationship Between Stress And Academic Achievement Of School Students**

**Sahiba, Dr. Amarinder Singh,**

**Research Scholar, School of Mangement Studies, Punjabi University, Patiala**  
*sahibamarwah2000@gmail.com*

**Professor, School of Mangement Studies, Punjabi University, Patiala**  
*dramarindersingh@yahoo.co.in*

## **Abstract**

The study investigated the connection among stress and academic achievement of school students. A total of 120 senior secondary school students randomly selected from Ambala participated in the study. Three null hypotheses were tested using data generated from research instruments. The instrument included Stress Inventory planned and homogeneous by Dr. Suman Nangia (1990). Academic achievement was taken from the students' previous examinations. Data generated from these instruments were correlated using Pearson product moment correlation method. Results showed a positive correlation between stress and academic achievement. Significant difference exists in the academic achievement of students have high, sensible and less pressure. Students with high and modest stress performed superior than the students having less pressure. Additional it was also originate that stress and academic attainment are not mediated by gender.

**Keywords:** *Stress, academic achievement, senior secondary school students*

## **1. Introduction**

Academic performance is something of great significance to parents, teacher and students themselves. Even the larger society is aware of the long-term effects of positive or negative academic behavior since graduates from educational institutions are expected to shape the destiny of society (Salami, 2001). Unfortunately, academic behavior of undergraduates is becoming worrisome and this has remained a matter of grave concern to many educationists (Aremu, 2001). These students have many obstacles to overcome in order to achieve their optimal academic performance (Womble, 2003). Stress is a common problem to male and female students in schools and the way it is managed may reflect in their academic performance (Salami, 2001). A total of 70% of the undergraduates experienced stress (Office of Planning and Institutional Research, Villanova University, 2008). The

effects of pressure can be encouraging or harmful. Positively used, pressure can be a motivator for an enhanced quality of life. Stress can be negative, when it become destructive as a consequence of how an individual negatively apparent it and react to it ( Blonna, 2005). spacing, rather than smaller point sizes. Some technical formatting software print mathematical formulas in italic type, with subscripts and superscripts in a slightly smaller font size. This is considerable.

In the current competitive era, it is reported that adolescent generation are found to be extra in stress. We got the information connected to depression, try to suicide and some emotional symptoms among the adolescence. Sometimes we got the information related to suicide, attempted suicide depression, dropout and many more psychological symptoms among the youth. Now scenario has been changing most of us aware about the stressor which affect the college students and maintain the environment which induces the positive thinking among youth. The measures have also taken by the individuals and different organization to conduct the various programs to reduce the stress.

Adolescence is an unsafe period of time where adolescent people experience self-association and role uncertainty. For them, stress mainly comes from academic tests, interpersonal relations, relationship problems, financial, and career investigation. Such pressure may frequently cause psychological, physical, and behavioral troubles. Taking all these factors into report an attempt is made to appreciate the stress and affecting adjustments of today's adolescence. The inference of this study may lead to better adjustment and academic performance of the students.

The majority of investigations related stresses have taken place in the United States which concentrated mainly on students in the medical field (Rafidah, Azizah, Norzaidi, Salwani, & Noraini, 2009). It is important to note that there were also some inconsistencies with the findings in the previous literature as stress was not shown to be

positively related to academic performance. of This paper thus attempts to address these gaps by incorporating five areas of stress and correlating them with the academic performance of school students of Ambala.

## 2. Review of Litwerature

**Aikens et al., (1992)** The study of stress hypothesized stress as the communication between the three basics perceived as the insight of coping skill, and the perception of the significance of being able to cope with its demand. Different from a lot of previous definitions of pressure, this formulation evidently integrates the transactional procedure that is supposed to be central to present theories of academic evaluation. Stress is just seen as a mismatch among demand and capacity on the dissimilarity, the insight of these two elements, and the most important the wish or the motivation that one feels to react all the requirements are at the heart of the creation.

**Dawood (1995)** Stressed kids show symbols of disturbing disabilities, aggressive performance, anxiety, social terror and often need attention in if not agreeable actions. In a study showing that student stress has an effect on their learning performance. He gives confidence showed that the most usually mentioned stressor by student was school and repulsion associated stressors. Many young person's lean to become free spirit and fall prey to teenager sadness in reply to a assortment of rising up nervousness. However, damage induce worries and tenseness in kids harmfully affect children's arrangement at dissimilar levels.

**Brooks, Harris, Thrall, & Woods (2002)** Most young people may overcome or adapt to stress, though, excessive amounts of pressure may have long-term harmful effects on health during adulthood. Stress has been exposed to be linked with damaging physiological and emotional effects. It is obvious that stress during teenage years can relate to psychological conflicts, poor educational performance, poor training for adulthood, self-harm, and suicide.

**Visher, Bhandari, & Medrich (2004)** Public schools have extended struggled with the demands among their academic and occupational missions. Though, policy maker and school staff going ahead to understand that the goals of these mission are not equally exclusive and can also be corresponding. Visher, Bhandari and Medrich thought that all students can advantage from more information about career options and the skill and training necessary for dissimilar vocations, now as all can advantage from demanding academic. Even though overwhelmed school counselors carrying a caseload of up to 350 students could feel as even if they can only do so much, but they play a significant role in their students' career growth.

**Dahlin et al., (2005)** Stress query has become hard question many researchers attempt to find out a major answer of this question It's a question that has beguile many ample researchers of this period The word itself is shapeless and sustain the difficulty in discriminating its meaning. Definitions of pressure range from metallurgical injure to one's emotional wit's conclusion. Stress, on the other hand, is describe as a pressure that an individual suffers for a long period due to a situation that has not been determined. This is from time to time seen in students, but not as frequently as acute pressure. Stress knowledgeable over a long word can affect person health and create circumstances such as heart illness or stomach ulcers.

**Bernstein et al. (2008)** Stress impact on the expressive and physical behavior of persons. It is apparent as events or situations that reason persons to feel tension, stress, or depressing emotions.

**Husain, Kumar and Husain (2008)** explored the period of educational pressure and on the whole transform among Public and Government school student and also to observe organization among the two variables learning pressure and adjustment. Results show that extent of academic pressure was significantly superior among the Public-school student whereas Government educate students were significantly improved in terms of their level of change. However, converse but important relations among educational stress and modification were establish for together the group of students and for every type of school.

**Hystad, Eid, Laberg and Johnson (2009)** explored ability of personality power of survival to defense the association flanked by educational pressure and happiness. Results showed that power of endurance was negatively linked with both academic stress and numeral of health complaint and show that hardiness reasonable the organization in the middle of academic pressure and health.

**Britz and Pappas (2010)** originate that 50.8 percent of the 124 participants report being often or always stressed out, with academics, time managing, making future strategy, and sleep being the top indicate sources of pressure. Britz and Pappas (2010) also set up that students who reported high levels of pressure also reported harmful lifestyle habits such as asleep and eating pattern. Students attainment less than seven hours of sleep a night report improved levels of stress compare to students who got more than seven hours of sleep or more a night-time.

### 3. Objectives of the Study

- 1.To investigate the relationship between stress and academic achievement of senior secondary school students.
- 2.To compare the stress levels of male and female senior secondary school students.
- 3.To compare the academic achievements of male and female senior secondary school students.
- 4.To compare the academic achievements of students having less, moderate and high stress.

#### 3.1 Research Hypotheses

The following null hypotheses were tested in the study:

- 1.There exists no significant relationship between stress and academic achievement of senior secondary school students.
- 2.There exists no significant difference in the stress levels of male and female senior secondary schools students.
- 3.There is no significant difference in the academic achievements of male and female senior secondary school students.
- 4.There exists no significant difference in the academic achievements of students having less, moderate and high stress.

### 4. Materials and Methods

**Sample and Sampling Technique:** To comply with the objectives of this study, 120 senior secondary school students were selected from different schools of Ambala. The mean age of the students was 16.57. The stratified random sampling technique was employed in selecting the sample. Students were stratified based on gender such that equal number of participants represented each of the two genders (male and female).

**Measures:** A stress inventory designed and standardized by Dr. Suman Nangia (1990) was used in this study to assess the level of stress in the individuals forming sample. The instrument contained 37 items having five areas of stress viz. (a) physical stress, (b) social, economical and political stress, (c) family stress, (d) job and career stress (e) other relationship. Internal consistency was evaluated for the stress inventory events and impact scores by computing Cronbach's alpha for the sample. Coefficient

alpha for the event score was .92 and for the impact score was .91.

The demographic data of the participants were gathered via the information sheet. In the information sheet, data of the students include their name, gender, class, date of birth and academic achievement. The participants' performances in last two examinations (annual exam of +1, and pre-board exam of +2) were taken from their academic record. This represents the participants' academic achievement scores.

**Scoring Method and Data Analysis:** The Stress Inventory was scored on 5-point scale Likert format, whereby least often = 1 point to most often = 5 points. The scores were collated for analysis using product moment correlation (to find out the relationship between stress and academic achievement) and t-test (to compare the stress levels and academic achievements of male and female students & to compare the academic achievements of highly stressed, moderately stressed and less stressed students).

### Results

**Table-1: Correlation Coefficient of Stress and Academic Achievement**

Stress	Academic Achievement
Physical Stress	0.10
Social, Economical and Political Stress	0.17*
Family Stress	0.07
Job and Career Stress	0.34**
Other Relationship	0.08
Total Stress	0.19*

**Note:** \* significant at 0.05 level, \*\* significant at 0.01 level

**Table-1** shows the correlation coefficient of stress and academic achievement of senior secondary school students. It is clear from the table that no significant correlation existed between physical stress and academic achievement, family stress and academic achievement, other relationship and academic achievement while other type of stress viz. social, economical and political stress, job and career stress as well as total stress were positively and significantly related with academic achievement of senior secondary school students. The correlation coefficient of job and career stress with academic achievement is significant at 0.01 levels where as, the correlation coefficient of social, economical and political stress and total stress with academic achievement is significant at 0.05 levels. Hence the null hypothesis stated above is rejected in favor of alternative hypothesis. This means that there is a

significant positive relationship between stress and academic achievement of senior secondary school students.

**Table-2: Gender Difference In Participants’ Stress**

Group	N	Mean	SD	df	t-value	Level of significance
Male	60	123.4	21.8			
				118	0.02	Not significant
Female	60	123.5	22.3			

Table-2 depicts no significant gender difference in participants’ stress level as t- value (0.02) is not significant at .05 levels. Thus, the postulated null hypothesis is retained. This means that stress is not gender sensitive.

**Table-3: Gender Difference In Participants’ Academic Achievement**

Group	N	Mean	SD	df	t-value	Level of significance
Male	60	62.83	6.83			
				118	1.40	Not significant
Female	60	60.83	8.68			

Table-3 reveals no significant gender difference in participants’ academic achievement as the t- value (1.40) is not significant at .05 level. Therefore, the null hypothesis stated above is retained. This means that academic achievement is not gender sensitive.

**Table-4: Academic Achievement of Subjects and Their Level of Stress**

Level of Stress	N	Mean	SD
Highly Stressed	28	63.36	6.93
Stressed	30	51.8	8.32
Moderately Stressed	62	62.68	7.72
Less stressed	30	58.12	8.32

From the table-4 above, highly stressed students had a mean academic achievement of 63.36 and a standard deviation of 6.93, while less stressed students had a mean of 58.17 and a standard deviation of 8.32. The difference between mean values of two groups (2.59) is statistically significant at 0.05 levels. This indicates that a significant

difference exists between the academic achievements of highly stressed and less stressed students with highly stressed performing better than the less stressed students. Furthermore data on the mean academic achievements of moderately stressed (M=62.68, S.D.=7.72) were compared with those of less stressed (M=58.17, S.D.=8.32). This analysis showed a mean difference of 2.50 which is significant at 0.05 levels. This indicates that the academic achievements of moderately stressed students were better than those of less stressed. On the other hand another comparison of mean academic achievements of moderately stressed (M=62.68, S.D.=7.72) and highly stressed (M=63.36, S.D.=6.93) showed a mean difference of 0.42 which is not significant at 0.05 level. This perhaps suggests that the academic achievement of moderately and highly stressed is not different.

## 5. Discussion

It is commonly held view that stress has a negative effect on academic performance. The result of present study does not provide any additional support for the often-observed negative relationship between stress and the academic achievement of adolescents or students. The findings of the present study reveal that there is a positive relationship between stress and academic achievement. This result of the present study is corroborated with the findings of the study conducted by Bankston and Zhou (2002), where they found a significant positive relationship between stress and academic performance of college students. The next finding of the present study reports no significant gender difference in stress and academic achievement of senior secondary school students. This means gender difference did not mediate senior secondary school students’ stress and academic achievement. This finding of the present study is in congruence with finding of the study conducted by Eweniyi (2009), where he reported an insignificant gender difference in the stress level and academic achievement of Nigerian undergraduate students. This suggests that whether one is a male or female, the way the individual feels stress has a bearing on his or her academic achievement.

The result of the study also indicated that there is a significant difference in the academic achievement of highly, moderately and less stressed students. Students with high and moderate level of stress have higher academic achievement than students with low levels of stress.

## 6. 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.

## References

- [1] Aremu, S. (2001). Academic Performance Five-factor Inventory. 1<sup>st</sup>Edn. Ibadan, Stirling- Holden Publishers, 1-12.
- [2] Bankston, C. L. & Min Z. (2002). Being Well vs. Doing Well: Self-Esteem and School Performance among Immigrant and Non-immigrant Racial and Ethnic Groups. *International Migration Review*. 36(2), 389-415.
- [3] Bell, F. (1995). The relationship between academic achievement and stress from life change events of non-traditional college students. *Humanities and Social Science*, 57(7)
- [4] Blonna, R. (2005). Coping with stress in a changing world. 3<sup>rd</sup>Edn. New York: McGraw Hill Higher Education, 254-268.
- [5] Blumberg, P., & Flaherty, J.A. (1985). The influence of non-cognitive variables on student performance. *Journal of Medical Education*, 60, 721-723.
- [6] Clark, E.L., & Rieker, P.P. (1986). Differences in relationships and stress of medical and law students. *Journal of Medical Education*, 61, 32-40.
- [7] Dubois, D. and Felner, L. (1992). A prospective study of life. Stress, social support and adaptation in early adolescence. *Child Development*, 63(2), 542-557.
- [8] Dyson, R., & Renk, K. (2006). Freshmen adaptation to university life: Depressive symptoms, stress, and coping. *Journal of Clinical Psychology*, 62, 1231-1244.
- [9] Eweniyi, G.B. (2009). Stress management skills and students' academic behaviour: Implications for counselling. *The Social Sciences*, 4 (1), 139-142.
- [10] Felsten, G., & Wilcox, K. (1992). Influences of stress, situation-specific mastery beliefs and satisfaction with social support on well-being and academic performance. *Psychological Reports*, 70, 219-303.
- [11] Ganesan, S.R. (1995). The effect of anxiety on academic achievement. *Journal of Educational Research and Extension*, 31(3), 154-167.
- [12] Gelow, Z.A., Brown, J.B., Dowling, W.A., & Torres, P.D. (2009). Stress, general health, and academic performance. Ninth Annual IBER & TLC Conference Proceedings 2009, Savannah State University, Las Vegas, NV, USA
- [13] Hussain, A., Kumar, A., & Husain, A. (2008). Academic stress and adjustment among high school students. *Journal of the Indian Academy of Applied Psychology*, 34, 70-73
- [14] Kaplan, D.S., Liu, R.X., & Kaplan, H.B. (2005). School related stress in early adolescence and academic performance three years later: The conditional influence of self expectations. *Social Psychology of Education*, 8, 3-17.
- [15] Lazarus, R. S. (1966). Psychological stress and the coping process. McGraw-Hill, New York.
- [16] Lazarus, R. S. & Folkman, S. (1984). Stress, appraisal, and coping. Springer Publishing Co, New York.
- [17] Linn, B.S. & Zeppa, R. (1984). Stress in junior medical students: Relationship to personality and performance. *Journal of Medical Education*, 59, 7-12.