

# Stress and its Impact on Academic Achievement Among the Higher Secondary Students of Guwahati, Assam

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**Abstract:** Stress among students is an issue of concern, and it affects academic performance and health significantly. Understanding the prevalence of stress among students is of importance in determining physiological and psychological remedies, and the issue is of interest in several fields. In this study, the researchers investigate the impact of stress on the academic achievement of higher secondary students in Guwahati, the largest city in northeastern India. Our results indicate that level of stress among higher- secondary students is high, due to academic stress majority of students are facing serious health issues along with low performance in their academics.

**Keywords:** Stress, academic achievement, higher secondary students.

## 1. Introduction

Stress has become an important topic in academic circle as well as in our society. Many scholars in the field of behavioral science have carried out extensive research on stress and its outcomes and concluded that the topic needed more attention. [1] Especially, in a country like India with the world's largest proportion of youth with 365 million 10-24 years old according to United Nations report, investigating the correlation between stress and academic achievement is of utmost importance. It has been shown previously that an optimal level of stress is conducive to learning, but severe stress leads to various health issues such as decreased performance physically as well as mentally, anxiety, and restlessness. Moreover, severe stress affects social interactions, and stressed people often exhibit low-confidence, especially in the school and workplace. [2]

The World Health Organization defines stress as the reaction people may have when presented with demands and pressures that are not matched to their knowledge and abilities and which challenge their ability to cope. It is known that stress among students affects academic performance. Especially, teenaged students are more likely to experience stress. [3] Taking this into consideration, we focus on higher-secondary students in this study. In India, higher-secondary or senior-secondary school refers to the XI<sup>th</sup> and XII<sup>th</sup> standard students in the 12-year Indian schooling system. This is equivalent to the final two years of the American high-school system, and generally, the

average age for students is 15 years (XI<sup>th</sup> standard) and 16 years (XII<sup>th</sup> standard).

Levels of stress depend on several factors' academic competition, family issues, social interactions, and high work load. Adolescent students often cannot manage stress effectively, leading to further complications such as anxiety and depression. [4]

## 2. Review of Literature

A study was undertaken by Busari *et al* (2012) on "Evaluating the Relationship between Gender, Age, Depression and Academic Performance among Secondary School Students". In this study author found that stress is leading to depression among secondary school students and it linked with their academic achievement. Author has also suggested that introduction of preventive measures to manage stress and teaching about various life skills and other therapeutic techniques should be taken in to serious consideration for managing the stress level. Depression may lead to suicidal tendency. [5]

A study was undertaken by Bataineh *et al* (2013) "Academic stress among undergraduate students: the case of education faculty at King Saud University". In his study author has identified that the academic stress is also experienced by the University students. The result of the study identified that there is a lot of unnecessary academic overload for university students, students has not enough time to study due to the vast course content, high family expectations and low motivation levels are some of the reasons for the stress. The students' fear of failure is also a prime reason for stress. [6]

A study was undertaken by Suzanne S. Hudd, Jennifer Dumlao (2000), "Stress at college: effects on health habits, health status and self- esteem"; They found that females and non- athletes are more likely to be "stressed" and that "stressed" students are less likely to practice healthy behaviors and are more prone to practice bad habits. Author noted that Students under greater stress also exhibit lower levels of self-esteem and reduced perceptions of their health status. [7]

A study was undertaken by Blumberg and Flaherty (1985)

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“The influence of no cognitive variables in student performance”. In this study author has found that an inverse relationship between self-reported stress level and academic performance. Students face high level of stress due to academic pressure. This stress has a detrimental effect on their academic performance. [8]

A review study was done by Chavajay & Skowronek, 2008; Irizarry, & Marlowe, 2010; Sanders & Lushington, 1999 “Review of the Literature on Stress and Wellbeing of International Students in English-Speaking Countries”. Author identified that academic stress is commonly felt by students all over the world, whether they are studying in their home country or overseas. However, it seems that international students face more academic challenges than their domestic student peers due to the differences between the learning styles or teaching methodologies in their home country and the host country. [9]

A study was undertaken by Subramani and Kadiravan (2017) “Academic Stress and Mental Health among High School Students” they discussed about academic stress and mental health among students. Author endorsed that academic stress and mental health are correlated and that students are cramped with the academic structure. There is no guidance from school and parents. The students are mentally healthy when they perform constructively in the academic forums. Author has also described the amount of stress given by private and government school on students and asserted that students from private schools have a different nurturing and vast exposure as compared to government school students who belong to poor socio-economic background and lack of exposure. This is one of the reasons for the escalation of stress. [10]

A study was undertaken by Sharma *et al.* (2016) “Academic Stress, Anxiety, Remedial Measures Adopted and Its Satisfaction among Medical Student, A Systematic Review” in this study author has discussed about various coping mechanisms of stress. Exercise on daily basis may reduce stress. One can also adopt to various time management tools and get involved with leisure activities which can benefit students. Change in the teaching style also can bring change while coping with students from stress. [11]

A study was undertaken by Khan and Kausar (2013) “Effect of Perceived Academic Stress on Students Performance”. In this study author has identified that stress impacts the academic performance in a negative way but no significant difference was found as per gender. The difference was evident between junior and senior students. [12]

A study was undertaken by Reddy *et al.* (2018) “Academic Stress and its Sources among University Students”. In this study author has concludes that it is important to deal with stress at personal, social and institutional level. Identify the main reason of stress is the key to deal with it. Professionals can develop tailor made strategies to deal with stress. The integrated wellbeing of the students is important not only for the individual but for the institute as well. [13]

### 3. Research Methodology

This study is descriptive in nature, and the area of study is in

Guwahati city of Assam. For the data collection researcher used both primary and secondary data. For collecting primary data survey was conducted by framing some end-to-end questionnaires, convenience sampling method was used for the selection of respondents. Analysis feedback consists of 25 numbers of questions was developed, validated and circulated among the 60 number of students (10 number of students from 6 different colleges of Guwahati city) with the help of direct interview method or by using an online platform like- e-mail, Google form, WhatsApp, etc. For analysis of data MS Excel and SPSS was used along with tabulation and graphical representation.

## 4. Data Analysis

### A. Descriptive study of stress and academic achievement

Table 1  
Relation between stress and academic achievement

Variable	Mean	Standard deviation	N
Stress	4.96	2.98	60
Academic Performances	5.4	2.75	60

(Source: Compiled from primary data)

From Table 1 it can be analysed that 60 students responded the questionnaire. The average level of stress was 4.96, while the mean academic performance score was 5.4 in order to establish the relationship between stress and academic performances Pearson Product Moment Correlation Coefficient was done. The results were analysed and tabulated in below Table 2.

Table 2  
Pearson product moment correlation between stress and academic performances

Variable	Mean	Sd	N	R Value	R2 Value	P Value
Stress	4.96	2.98	60	0.9028	0.815	<0.00001
Academic Performance	5.4	2.75				

Source: Compiled from primary data. Significance level 0.05

Hypothesis (H0) = There is no significant relation between stress and academic achievement.

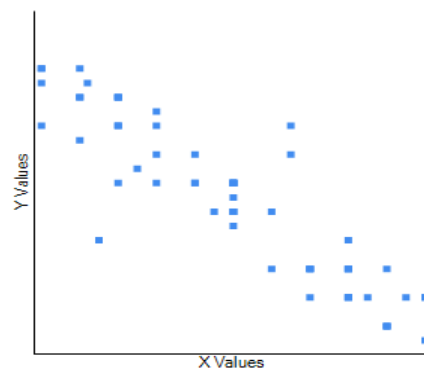


Fig. 1. Pearson product moment correlation (X value = stress, Y value = Academic Performance)

From table 2 it can be analysed that level of stress (M 4.96, Sd 2.98) and Academic Performance (M 5.4, Sd 2.75) Pearson

Table 4  
Sample responses towards source of stress

S. No.	Source of stress	Number of respondents	Percentage	Cumulative Frequency
1	Unnecessary academic overload	16	26.66	26.66
2	More home work	5	8.33	35
3	Long hour of class	20	33.33	68.33
4	Lack of sleep and rest time	18	30	98.33
5	None of the above	1	1.66	100

Source: Compiled from primary data. N = 60

product moment correlation was done R value is -0.9028 and R<sup>2</sup>(Coefficient of determination) is 0.815. P value is < 0.00001, hence the null hypothesis is rejected and alternative hypothesis is accepted. There is a strong negative correlation was found among the variable. So, students who are having high stress their academic achievement are less.

Table 3

Analyzing the association between gender and stress using Chi- square test  
Observed Value:

Gender	Feeling of Stress	
	Yes	No
Male	31	12
Female	6	11

Source: Compiled from primary data

Hypothesis (H<sub>0</sub>) = There is no association between gender and stress.

Expected value:

Degree of freedom	Chi-Square	P value
1	6.97	0.0082

Gender	Feeling of Stress	
	Yes	No
Male	26.52	16.48
Female	10.48	6.52

Significance ( $\alpha$ ) = 0.05

Chi- Square test of independence was performed to examine the association between gender and stress. The relation between these variables was significant  $\chi^2(1, N 60) = 6.97$ , P value is 0.00082, hence the null hypothesis is rejected and alternative hypothesis is accepted. So, from the observation we can conclude that male students are having high stress than female students.

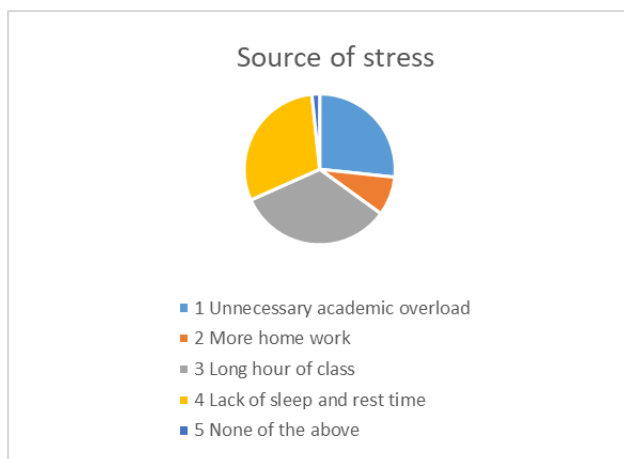


Fig. 2. Source of stress

*Interpretation:* From the above diagram it can be depicted that a majority of the sample respondent thinks that long hour of class is the main reason of stress (33.33%) followed by lack of sleep and rest time (30%), unnecessary academic overload (26.66%), more homework (8.33%).

### 5. Findings

From the study major findings are,

1. Stress and academic achievement are related to each other. Student with high level stress are comparatively performs less in their academic.
2. The study data concluded that male students are having more stress level than female.
3. From the secondary data we can say that stress may lead to various health and mental problems among students like- depression, lack of self- esteem, anxiety and also stressed person are more prone to bad habits such as alcohol addiction. Source of stress can be unnecessary academic overload, low motivational level, family pressure, less time for self-study and leisure.
4. The study found that majority of the sample respondent (33.33%) identified long hours of class as a main source of stress followed by lack of sleep and rest time (30%), unnecessary academic overload (26.66%), more homework (8.33%).

### 6. Conclusion and Recommendations

Based on the above findings, the researcher recommends that,

1. Regular counseling and measures must be taken by Higher Secondary colleges to curb stress among the students.
2. The syllabus and teaching method must be scientific in nature so that students don't feel burden and their credibility and knowledge can be evaluated easily.
3. Activities that can boost self-confidence such as extra-curricular activities, teaching about various life skills, and positive motivation for work should be emphasis for students.

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