# AN EMPIRICAL RELATIONSHIP BETWEEN STRESS & ITS IMPACT ON ACADEMIC ACHIEVEMENT OF **ENGINEERING COLLEGE STUDENTS**

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# ABSTRACT

The purpose of this paper is to study the relationship that exists between stress & Academic achievement. A total of 350 students randomly selected from top five Engineering colleges in Chennai. The study tries to make an in-depth investigation of stress & its impact on Academic achievement. A stress inventory designed & standardized by Dr. Suman Nangia (1990) was used as an instrument to assess the level of stress on its Academic Achievements. The study reveals positive effects on stress & its Academic Achievement.

Keywords : Stress, Academic Achievement, Engineering college.

# Introduction:

Academic importance is of implicating a high importance to teachers, parents & students. Academic Achievements or Academic performance is the outcome of Education. It is commonly measured by examinations or continuous Assessment. Academic behavior on Engineering students become worrisome & has remained a matter of grave concern to many educationalist (Aremu, 2001). These students face many problems & they find remedies to overcome such situation. To increase their Academic performance (Womble, 2003)A total of 75% of students experienced stress. Stress can be both positive and negative. If it is positively used, is a motivator for the students to improve their performance, In case if negatively used, it depends on the individual to overcome stress. A number of students found a relationship between stress & Academic Achievements(Clark & Reiker, 1986). Malik & Balda (2006) found a negative correlation between stress & Academic Achievement . Dubosis & Felnec (1992) & Ganesam (1995) have found that stress made significant contribution to poor performance of Adolescents.

# **Literature Review**

Stress is defined as a state of psychological arousal that results when external demand tax or exceed a persons adaptive abilities- Lazarus 1966; Lazarus & Folkman (1984)

According to Pearlin(2002), people experience an array of stressors in their life time & although most social science research refers to stressors as stressful life events, not all stressors are eventful many are chronic.

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# Academic Achievement

According to Spinath(2012) defines the importance of Academic Achievement with regard to different perspectives (such as individual & societies, as well as psychological & education research).

According to Good(1945), defines Academic Achievement as , knowledge attained or skills developed in the school subject , usually designed by test scores or by marks assigned by teachers or by both"

# Objectives

- > To find out the relationship between stress & Academic Achievements of the students.
- > To compare & find the stressful between Genders
- > To find the levels of Academic Achievement of Male & Female students.
- To compare the stress level of students performing Less, Moderate & high stress in Academic Achievements.

# Hypothesis

H<sub>1</sub> There exists no relationship between stress & Academic Achievements of students

H<sub>2</sub>: There exsts no significance difference between stress level of Male & Female.

H<sub>3</sub> : There is no significance difference between Academic Achievements of Male & Female.

H<sub>4</sub>: There is no significance difference between the Academic Achievement of students having less, moderate & high stress.

#### **Materials and Methods:**

To identify with the objectives of this study, 315 Engineering students were selected from top five Engineering colleges in Chennai. The Questionnaire was distributed out of which 280 are taken. The response rate for this study is 88%. The Stratified Random Sampling technique was used for this study. Students were stratified equally based on two genders. (Male, Female)

#### Measures:

Dr.Suman Nangia(1990) were the instrument used for this study to assess the level of stress & Academic Achievement. The instrument contains 37 items divided into five areas of stress.

- Physical stress
- Social, Economical & political stress
- Family stress
- Job & career stress
- Other Relationship

# Data analysis & Interpretation:

Stress	Academic achievement		
Physical stress	0.10		
Social, Economical & political stress	0.16*		
Family stress	0.05		
Job & career stress	0.05		
Other Deletionship	0.39**		
Other Relationship	0.08		
Total Stress			
	0.17*		

# Table: 1 showing correlation co-efficient of stress & Academic Achievement

Note : \* signifies at 0.05level,\*\* indicates at 0.01 level.

# Interpretation:

From the above table , it is inferred that co- efficient of stress & Academic Achievement of college students. It is clear from the above table that there is no significance relationship between Physical stress & Academic Achievements, Family stress and Academic Achievements & Other Relationship & Academic Achievements. But factors Social, Economical & political stress are positively & significantly related to

Academic Achievements of the students.

# Table: 2 showing stress level between Male & Female

Group	N	Mean	S.D	df	T-Value	Level of significance
Male Female	140 140	271.3 272.1	91.8 92.7	256	0.002	Not significant

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## Interpretation:

From the above table it is inferred that there is no significant difference between gender. The t-value indicates (0.002) is not significant at 0.05 levels.

Group	N	Mean	S.D	df	t- value	level of significance
Male	140	123.4	9.23			
Female	140	1119.2	8.15	256	1.66	Not significant

# Table: 3 showing Academic Achievements between Male & Female

#### Interpretation:

From the above table it is inferred that there is no significant relationship between Male & Female with Academic Achievement as t- value represents (1.66) which is not significant at 0.05 level.

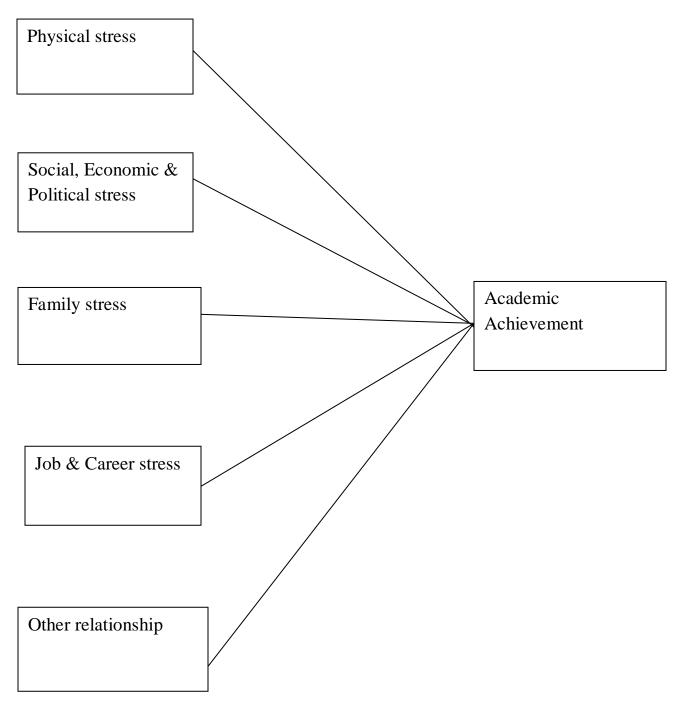
### Table : 4 showing Academic Achievement & their level of stress

Level of significance	N	Mean	S.D	t-value	LOS
Highly Stressed	69	66.71	8.54	1.63	Not sig. at
Stressed	50	58.17	8.32		05 levels
Less Stressed	48	63.37	7.72	0.79	Not sig.
Moderate Stressed	42	61.23	6.93		

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# Interpretation:

From the above table it is inferred that Highly Stressed scores a highest mean value of 66.71 & S.D of 8.54, On the other the least stressed scores a mean value of 58.17 with S.D of 8.32. The difference between mean value of two groups (0.022) is significant at 0.05 levels. This indicates that there is a significant relationship exist between the Academic Achievement of Highly stressed.



**Theoretical Framework** 

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### Suggestions:

It is commonly said that stress have Negative impact and effect on Academic Achievement. The results of this study does not reveal any Negative relationship between stress & the Academic Achievement of students. The findings of the study also reveals that there is a Positive relationship between stress & Academic Achievement. It is also revealed that there is no significant difference between stress & Academic Achievement in Gender wise. The study also indicated that there is significant difference in Academic Achievement which implicate the Highly, Moderately & less stressed students.

# **Recommendation:**

It is highly recommended that parents should support & inspire students. They should support, motivate & develop self- confidence & self discipline & the students need to develop balance state of mind. On the part of teachers they should develop & inculcate interest among students. Better guidance should be provided to develop confidence among the students. Planning plays a major role in Academic work. Therefore planning during examination & Time Management of students play a vital role to reduce stress.

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