

Perceived Stress Among Post Graduate Students And Its Association With Academic Performance

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Abstract: College days are said to be the most cherished and golden days in a person's life. It is in college that a student enjoys the vibrant college environment, the circle of friends, numerous academic and other extra-curricular activities, which enhance their skills and also boost up their confidence. This attribute is slowly dying away with the invasion of stress in the life of a student.

The increase in stress levels has dire consequences. These days, college students are exposed to chronic stress and can suffer from several long-term side effects, like developing insulin-dependent diabetes. Apart from this, a matter of grave concern is the rise in suicide rates amongst college-going students. As described by American College Health Association, statistics published in Psychology Today show that the suicide rates in students have increased to threefold when compared to what it was in 1950. Therefore, in this study the researcher has tried to know the factors which influence the performance of the students. The research has collected the primary data with a sample of 160, who are the post graduate students of arts and science from Hyderabad. The sample has taken with convenience sampling.

Key words: Stress, student performance,

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1. Introduction

Childhood stress is increasing in both its frequency and severity. Some factors that may contribute to this stress include the pressure on children to mature emotionally and psychologically at an increasingly earlier age, a decrease in the number of caring parents, and a subsequent reduction in parent's love and support. As a child grows and reaches puberty a psychological metamorphosis takes place and this is the adolescence stage. It is the developmental period during which a growing person makes a transition from childhood to adulthood.

1.1 Review of Literature:

Stress, according to Pestonjee (1992)¹, occurs when an individual's transition abilities are exhausted. He believes that, while stress is commonly thought to be harmful to one's wellbeing and success, new evidence has shown that a low level of stress is necessary for successful functioning. It is the individual's response to stress that makes all the difference and can be dangerous. According to him, interest in the subject is growing, and he refers to the twenty-first century as the "age of fear and tension."

Many students find college to be a rewarding experience, but due to course standards such as assessments, reports, and presentations, many students find college to be chronically exhausting (Murphy & Archer, 1996)².

Irvine (2002)³ lists a variety of stressors that children face, ranging from parental divorce and alienation to academic and social loss. Stressful interactions are often thought to be rising in severity during the teenage years, when teenagers encounter influential stressors such as family dysfunction, social pressure, and academic problems.

Dixon, Wayne, Heppner, Paul, Anderson, and Wayne (1993)⁴ researched 154 students and results showed a significant interaction between stress and hopelessness. Hopelessness was strongly related to depression scores under the high level of stress.

Leung (2007)⁵ looked at the moderating and mediating processes by which parental support and children's resourcefulness can affect stress outcomes. As opposed to the global academic hassles metric, domain analysis was found to be more vulnerable to gender differences. Boys were more affected by "expectations and pressures from significant ones" and "academic demands and overload," while girls were more affected by "academic inefficacy and fear of failure."

“Stressors like academics; physical, mental, and financial has an effect on the academic achievements of a college student,” according to Kadapatti & Vijayalaxmi (2012)⁶. Academic stress is caused by factors such as curriculum and workloads, as well as economic inequality, according to the findings of an Indian survey. Poor time control, financial difficulties, lack of sleep, and social engagements may all contribute to low academic performance of certain pupils.

Financial stress has been linked to a decrease in academic success, according to Pinto et al. 2001; Ross et al. 1999; and St. John, 1998. However, according to Mehta et al. (2011)⁷, financial burden is not the only aspect that influences low academic success.

The university, families, colleagues, and advisors all have a significant effect on a student's success and results. Emotional, academic, and financial aids are all important considerations in determining college students' progress. College life can be exhausting and change a student's life experience; thus, it is critical to spend time with family and friends while in college. (Trockel et al. 2000)⁸.

Shaikh et al (2004)⁹ also report that relationship problems both at home and in college often contribute to stress. As stated by Greenberg (1996) making new friends is one of the causative factors of stress amongst college students. Stress Levels of College Students: Interrelationship between Stressors and Coping Strategies. Besides making new friends, it is often seen that transforming and building a new friendship is a stressful situation highly related to college life.

K. Uma Mahaswari and M. Deepa conducted research on the subject. According to the findings, business school students face a medium degree of interpersonal, intrapersonal, and intellectual stressors. As a result of the findings, it was discovered that a rise in interpersonal and intrapersonal stressors had a negative impact on academic success, while academic stress had a positive impact (Maheswari & Deepa, 2013).

Academic stress is described as mental distress caused by an anticipated irritation associated with academic failure, anticipation of such failure, or even knowledge of such failure's possibility (Gupta and Khan, 1987).

Several authors have studied the academic stress of different age groups. Zeidner (1992) study reported that students appeared to be under high pressure originating from course overload and academic evaluation procedures and least stressed by personal familiarity and social factors.

Stress is an unavoidable part of life. We are often subject to stressful circumstances in our everyday lives. Different individuals have different interpretations and reactions to stressful situations. Speaking in public, for example, can be frustrating for others and calming for others. If our stress level is too high, though, it may lead to severe medical and social issues. Stress is described as any situation or condition that tests or exceeds an individual's ability to cope (Lahey, 2004, P.500)¹⁰.

Stress may be characterized in a variety of ways. A layperson might describe stress as strain, tension, unpleasant external factors, or an emotional reaction (Ogden, 2004, P.234). The layperson's concept of stress, as well as the range of stress, are both perplexing and multidimensional. Stress is described as an abnormality in human behaviour, psychology, emotional outburst, inhibition in daily routine work, or physiological changes. Stress is described as the number of physical and mental reactions to an intolerable gap between personal experience and expectations, whether actual or imaginary. It's a reaction that's both physical and emotional in nature. Adaptive stress, fear, and depression are also mental reactions to stress. Good stress is described as stress that improves physical or mental performance. However, if tension is persistent, it will inevitably lead to a desire for resolution, which may manifest as anxiety/escape or suicidal behaviour. The term "stress" comes from the Anglo-Saxon word "stress," and it was first used in physics to describe mechanical force in the medical industry. This type of stress is necessary because the stressors foster health by acting as stimulant catalysts, pushing the person toward the desired outcome. Distress, on the other hand, is the polar opposite of discomfort. It is unnecessary because it depletes people's spiritual, behavioral, and physical well-being. Stress may occur at any age and in a variety of settings, including the workplace, family commitments, and social events.

1.3 OBJECTIVES OF THE STUDY:

1. To understand and know the reasons for stress among students.
2. To analyze the influence of various factors/stressors causing an increase in stress among students.
3. To identify a significant difference between the stress levels of male and female students.
4. To suggest measures to deal with stress in the day-to-day life of students.

1.4 Hypothesis of the study:

Based on the above objectives the pre-assumed statements are as follows.

H₀₁: There are significant differences between the stress levels of the students.

H₀₂: There are Significant differences between the stress levels of the male and female students

1.5 Research methodology:

In this study, the researcher has used both primary and secondary data. The method of collecting accurate and relevant data is a critical component of the investigation that serves as a key link in the overall study design's operating strategy and is essential for valid conclusions to be drawn. The current research is focused on both primary and secondary sources of knowledge. In order to procure the requisite updated data and details, the analysis necessitated a considerable amount of scheduling and planning. The following approach was used to carry out the current research while keeping the study's goals in mind. Personal conversations, documents perusal, and personal meetings with the students through survey were used to perform a crucial analysis of stress management with the aim of arriving at technically feasible conclusions.

Population and sample: the researcher has considered all the post-graduate students as the population. out of the total population, a sample of 160 has extracted with convenience sampling from Hyderabad division.

1.5. Discussion:

The researcher has collected the primary data with structured questionnaires from the post graduate students of various colleges to find out various factors/stressors causing an increase in stress among students. The data is analyzed with statistical tools like descriptive statistics, ANOVA and regression analysis.

Demographical factors:

The classification of the sample according to gender, course and age are shown in the table below. It is observed from the table below that, out of a sample of 160, 50.6 percent of the respondents are male and 49.4 percent of the respondents are female. 51.9 percent of the respondents having science background and 48.1 percent of the respondents are from arts. Majority (71.2 percent) of the respondents are in the age group of 22 - 24 years.

Table-1: Classification of the respondents on Gender, Course and Age.

S.No	Variable	Demographical factor	Frequency (Percentage)
1	Gender	Male	81 (50.6)
		Female	79 (49.4)
		Total	160(100)
2	Course	Arts	77 (48.1)
		Science	83 (51.9)
		Total	160(100)
3	Age	20	2 (1.3)
		21	20 (12.5)
		22	46 (28.7)
		23	40 (25)
		24	28 (17.5)
		25	12 (7.5)
		26	6 (3.8)
		27	2 (1.3)
		29	2 (1.3)
		30	2 (1.3)
		Total	160

Table-2: Reliability statistics of the factors of stress

S.No	Dimension	No. of factors	Cronbach Alphas
1	Academic Factors	15	0.91
2	Emotional Factors	8	0.76
3	Social Factors	4	0.71
4	Financial Factors	4	0.72
5	Family Factors	4	0.72
6	Psychosomatic Factors	8	0.89

The reliability statistics of the dimensions of the stress are presented in the table above with the values of Cronbach alpha respectively. As we know that, the Cronbach value which is more than 0.70 is considered as reliable for proper scale. In this questionnaire all the dimensions are showing the Cronbach Alpha values as more than 0.70. Therefore, the scale is reliable.

Table-3: Descriptive Statistics on various factors of stress among the students

Descriptive statistics on various factors of stress are analyzed, tabulated and presented in the table below. The factors of the dimensions were measured on a 5 rated scale and collected data. The data is analyzed and descriptive statistics are presented.

Dimensions of stress	N	Mean	Std. Deviation
Academic Factors	160	2.06	0.45
Emotional Factors	160	2.77	0.74
Social Factors	160	2.48	0.69
Financial Factors	160	2.97	0.85
Family Factors	160	2.76	0.75
Psychosomatic Factors	160	3.29	0.87
Valid N	160		

From the above table, the highest mean of the above factors is 3.29 for "psychosomatic factors" followed by financial factors (mean is 2.97), emotional factors (mean is 2.77), family factors (mean is 2.76), social factors (mean is 2.48) and academic factors (mean is 2.06). It is observed from the data is that the students feel more stress on psychosomatic factors followed by financial factors. The students felt very low stress with academic factors.

Table-4: Level of stress according to Gender

Factors		N	Mean	Std. Deviation	F-value	P-value
Academic Factors	Male	81	38.41	6.56	1.597	.208
	Female	79	39.78	7.09		
	Total	160	39.09	6.84		
Emotional Factors	Male	81	21.25	6.03	4.064	.046 *
	Female	79	23.15	5.83		
	Total	160	22.19	5.99		
Social Factors	Male	81	9.79	2.86	.424	.516
	Female	79	10.07	2.67		
	Total	160	9.93	2.77		
Financial Factors	Male	81	11.69	3.34	.722	.397
	Female	79	12.15	3.51		
	Total	160	11.91	3.42		
Family Factors	Male	81	11.22	3.24	.296	.587
	Female	79	10.96	2.78		
	Total	160	11.09	3.01		
Psychosomatic Factors	Male	81	25.66	7.13	1.476	.226
	Female	79	27.01	6.86		
	Total	160	26.33	7.01		

* Significance at 0.05.

From the above table, it is observed that, the mean for the female (23.15) is more than the mean for the male(21.25) for emotional factors. This means that the female students are feeling more stress than male students about emotional factors. The p-value (0.046) of emotional factors is less than to 0.05. The remaining factors p-value is more than to 0.05. Therefore, the male and female are feeling stress differently about emotional factors. But they felt same stress level about the remaining factors.

Table-5: Level of stress according to the course

Factors		N	Mean	Std. Deviation	F-value	P-value
Academic Factors	Arts	77	39.50	6.81	.538	.464
	Science	83	38.71	6.89		
	Total	160	39.09	6.84		

Emotional Factors	Arts	77	22.06	5.73	.068	.794
	Science	83	22.31	6.26		
	Total	160	22.19	5.99		
Social Factors	Arts	77	10.28	2.75	2.452	.119
	Science	83	9.60	2.76		
	Total	160	9.93	2.77		
Financial Factors	Arts	77	12.07	3.60	.319	.573
	Science	83	11.77	3.26		
	Total	160	11.91	3.42		
Family Factors	Arts	77	10.90	3.07	.554	.458
	Science	83	11.26	2.97		
	Total	160	11.09	3.01		
Psychosomatic Factors	Arts	77	25.74	6.98	1.053	.306
	Science	83	26.87	7.04		
	Total	160	26.33	7.01		

The stress levels of the students about various factors according the course (arts, science) are analyzed and shown in the table above. It observed from the table that the p-values of all the factors are above 0.05. This means that the factors of stress are not significant among the courses. i.e The arts and science students are feeling similar level of stress according various factors.

1.6 Regression analysis to know the factors which influence Stress:

In statistical modeling, regression analysis is a set of statistical processes for estimating the relationships among variables. It includes many techniques for modeling and analyzing several variables when the focus is on the relationship between a dependent variable and one or more independent variables (or 'predictors'). More specifically, regression analysis helps one understand how the typical value of the dependent variable (or 'criterion variable') changes when any one of the independent variables is varied, while the other independent variables are held fixed.

Most commonly, regression analysis estimates the conditional expectation of the dependent variable given the independent variables that are, the average value of the dependent variable when the independent variables are fixed. Less commonly, the focus is on a quantile or other location parameter of the conditional distribution of the dependent variable given the independent variables. In all cases, a function of the independent variables called the regression function is to be estimated. In regression analysis, it is also of interest to characterize the variation of the dependent variable around the prediction of the regression function using a probability distribution. In this, the researcher tried to extract the major factors of stress influence students performance. The model to fit the relation between a dependent variable and an independent variable is shown in the below table.

Dependent Variable: Student performance

Independent variables: Various factors of stress.

Table-6: showing unstandardized and standardized coefficient values of stress

Model		Un-standardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.539	.949		.568	.571
	Academic Factors	.035	.027	.062	1.291	.199
	Emotional Factors	.191	.035	.297	5.463	.000 *
	Social Factors	.156	.066	.112	2.356	.020 **
	Financial Factors	.346	.054	.308	6.393	.000 *
	Family Factors	.379	.071	.297	5.349	.000 *
	Psychosomatic Factors	.033	.027	.060	1.232	.220
a. Dependent Variable: Student performance due to Stress						

* Significance at 0.00, ** Significance at 0.05.

From the table above, it is observed that, the dependent variable "student performance" is influenced by the factors called "emotional factors", "social factors", "financial factors" and "family factors".

Therefore, the model to measure the student's performance is shown below.

$$Y = 0.539 + 0.191 X_2 + 0.156 X_3 + 0.346 X_4 + 0.349 X_5$$

Here, Y = Student's performance.

X₂ = Emotional Factors

X₃ = Social Factors

X₄ = Financial Factors

X₅ = Family Factors

1.7 Conclusion:

In the student's life stress is a major factor which influence their life. In this study, the research has done a study to know the factors which influence the performance of the students. The research has collected the primary data with a sample of 160, who are the post graduate students of arts and science from Hyderabad. The sample has taken with convenience sampling. It was observed with descriptive statistics that the students feel more stress on psychosomatic factors followed by financial factors. The students felt very low stress with academic factors. The factors of stress are not significant among the courses. i.e The arts and science students are feeling similar level of stress according various factors. The regression resulted that the dependent variable "student performance" is influenced by the factors called "emotional factors", "social factors", "financial factors" and "family factors".

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