Students' Stress: An Empirical Study of Assam University

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Stress has become a part and parcel of human life. It is also a part of every student's daily life. The prevalence of stress is increasing among students studying in higher education as a result of which dropout rate of students is also increasing. Issues such as student retention and student progression are becoming increasingly important for all universities. And it has become imperative to know the level of stress the students are enduring while pursuing higher education in the universities so that appropriate course of action may be chalk out to minimise the level of stress. The present paper is an attempt to measure the levels of stress among university students according to gender, course and Department; and to identify the coping strategies the students frequently use to cope with stress. The hypotheses governing the study are there is no significant difference in the mean scores of stress between male and female students; there is no significant difference in the mean scores of stress between Graduate and Post Graduate students; and there is no significant difference in the mean scores of stress of students among the three different departments chosen for the study. The type of research adopted for the study is Descriptive research in nature. Both primary and secondary data is used. A total of three departments of Assam University, Silchar, have been taken into consideration and analysis is done by using SPSS. Finally, the paper suggests some remedial measures to reduce the stress level of students for their better future.

Keywords: Stress, students, university.

Introduction

Stress has become a part and parcel of human life. It is also a part of every student's daily life. The prevalence of stress is increasing among students studying in higher education as a result of which dropout rate of students is also increasing. Issues such as student retention and student progression are becoming increasingly important for all universities for the sustainability of the education.

The National Institute of Occupational Safety and Health (1999) defines stress as "the harmful physical and emotional responses that occur when the requirements of the job do not match the capabilities, resources, needs of the worker'.

According to Sridhar Rao (2006), "Stress is a perceived state of disturbed harmony (homeostasis) produced by a stimuli condition or event called the stressor. The disturbance results from the person's inability to meet the threats posed by the stressor or from his inadequacy to satisfy the demands imposed by it".

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Walter Cannon (1935) studied the effects of stress on human beings and animals in terms of the well-known "fight or flight" syndrome. Under duress, human beings tend to choose between two alternatives: the first is to make all attempts to resist (i.e., fight) the environmental pressures and the process emerge victorious. The second is to avoid the pressure (i.e. flight) through the use of a variety of defence mechanisms. This is their way of reducing the pressure.

Recent research has shown that the psycho-social or stress risk factors can be found in hypertension, chronic fatigue syndrome, coronary artery disease, mental disorders, and a range of other illnesses. Further suppression of immune responses by the stress-related hormones may also provide chemical explanations of links between environmental and emotional pressures and susceptibility to diseases.

In today's fast ever changing competitive education environment, students are facing a lot of stresses and finding difficulties in copping with them. Now, it has become imperative to know the level of stress the students are enduring while pursuing higher education in the universities so that appropriate course of action may be chalk out to minimise the level of stress.

This paper attempts to measure the level of stress among university students and to know how the students are copping with the stress.

Review of Literature

University students experience a great amount of stress. The various causes (or the stressor) that a university students are facing are discussed below.

New Environment

The first cause of stress for university students is the new university environment itself and relationship with new teachers and friends. Human emotion and behaviour are influenced by the surroundings. Change of social circumstances can make the university students stress. This consequently adds to an already increased workload and pressures on time. Moreover the competitive environment makes the students try hard to adapt themselves stressfully.

Study Related

Managing coursework is stressful for every student; however, it helps students in becoming more organized in their academic and social life. The stress associated with factors related to studying, such as assignments and other essays, is an important consideration for many individuals, and is often cited more frequently than other factors causing stress (Abouserie, 1994). Striving to meet deadlines is a major source of stress for many students. Furthermore, a lack of proper time management brings stress to students.

Financial Pressures

A significant stressor for students is living with limited financial resources. Having limitations on financial resources can increase the impact of strains normally associated with studying (Foster, 1995). To combat their lack of money, increasing numbers of students are taking part time paid employment during their studies. According to The Student Living Report (2004), 42% of students have a job to support themselves at university, working an average of 14 hours per week. This need to work has added to what is, for some, already a stressful situation, such that 59% of students reported that they feel more stressed now, in comparison to their previous educational experiences.

Examination Stress

The most significant source of stress for some students is examinations, and the subsequent wait for results (Abouserie, 1994). Now each and every student want to get good grades and want to have higher scores than their friends since the course evaluation is based

on the statistics. The stress happens when desires are not the same. Examination stress can cause nausea, changes in eating and sleeping patterns, and stomach pains in some students (Mechanic, 1978).

Parental Pressure

Parental pressure is another important cause of stress which is the most important source of stress for the university students. Children do not want to disappoint their parents, so they overwork and do everything to reach the goals no matter how much stress it produces.

Un-Employment Problem

University students, facing poor employment opportunities when they finish their course curriculum, feel stress associated with the uncertainty of their career choice and future prospects.

Studies conducted by researcher to measure the stress level of students are described below:

Jai Prakash and Bhogle (1994) scrutinised the factor structure as a measure of coping behaviour, sex differences in coping styles of male and female as well as the relationship between coping and psychological distress of Indian students. The study revelled that female students used significantly more emotion-oriented coping strategies as compared to male students. Psychological distress had a significant relationship with the use of emotion-oriented coping behaviour. A British Association for Counselling and Psychotherapy (BACP) survey of student mental health found that the emotional problems students experience is growing increasingly severe. The number of students seeking help from therapists is rising faster than ever and at least 10% of those students that do seek counselling are suicidal.

Robotham and Julian (2006) in their paper entitled, "Stress and the higher education student: a critical review of the literature", has categorized the students'

responses to stress as emotional, cognitive, behavioural and physiological reactions. The study reported that students who reported high levels of stress were less satisfied with their health overall, including their weight and level of fitness. This indicates that students who experience high levels of stress also experience dissatisfaction with life factors that contribute to self-esteem.

Mansour and Dawani (2007) in their paper entitled "Social Support and Stress among University Students in Jordan" examined the relationship between perception of social support and perceived stress among university students in Jordan consisting a sample of 241 university students from private and government universities. The results showed that university students have moderate perception of social support and stress. Female university students had higher perception of stress and social support than male university students.

Chen, Wong, Ran and Gilson (2009) in their article, "Stress among Shanghai University Students: The Need for Social Work Support", describes the relationship between college stress, coping strategy and psychological well-being. The sample consists of 342 students in six universities in Shanghai. The study revelled that the psychological well-being has a negative relationship with college stress and positive coping strategies have significant buffering effects on psychological health problems. Male students reported higher level of stress, worse psychological well-being, and having less inclination towards using positive coping strategies.

Objectives

The main objectives of the present study are:
(i)   To measure the levels of stress among university students according to gender, course and Department.
(ii) To identify the coping strategies the students

frequently use to cope with stress.

Hypothesis

The following hypotheses are to be tested:

(i) There is no significant difference in the mean scores of stress between male and female students.

(ii) There is no significant difference in the mean scores of stress between Graduate and Post Graduate students.

(iii) There is no significant difference in the mean scores of stress of students among the three different departments chosen for the study.

Research Methodology

a) Type of Research: The research methodology followed is descriptive research in nature.

b) Sources of data: Both primary and secondary data has been used. Secondary data were collected from various books, journals and websites on stress of students. Primary data were collected through structured questionnaire.

c) Sample Size determination and Sampling method: Using Sample size Calculator, from a total of 592 students belonging to three departments, 95 students are determined at 95% confident level and at 9.2% confident interval. These 95 students are selected proportionately from the three departments depending upon the total no. of students in the respective department. Detail is shown in the following table.

Departments	Total No. of students	Proportion	Proportion (x) sample size	Sample items in each department
Computer Science	321	0.542	0.542 x 95=51.49	52
Information Technology	97	0.163	0.163 x95=15.48	15
Business Administration	174	0.293	0.293x95=27.8	28
Total	**592**	**1.00**		**95**

Finally,52 students are selected from 321 students of Computer Science,15 students are selected from 97 students of IT department and 28 students are selected from 174 students of Business Administration by using simple random sampling method.

d) Data analysis techniques: descriptive statistics are used for summarisation of data and ANOVA and independent t sample techniques are used for analysis of the summarised data.

e) Period of study: March to May, 2011.

f) Parameters of measuring Stress of Students:

The Following Parameters are used:

i. Education System

ii. Overload of classes

iii. Educational problems and discomforts

iv. Timing of classes

v. Too much of home assignments

vi. Economic problems

vii. Fewer resources

viii. Inability to understand what it is taught in the class

ix Examination System

ix. Future career thought

These parameters are converted into the following statements for measuring the responses of the respondents:

1. Education-system is the basic reason of increasing your stress level.

2. Overload of classes in the universities is the reason of having stress among students.

3. Educational problems and discomforts produce your

stress.

4. Timing of Classes in the university is one of the reasons for having stress among university students.

5. Too much of home assignments given to the students increase the level of stress among university's students.

6. University students show higher level of stress because of economic problems.

7. University students show higher level of stress because of fewer resources.

8. Inability to understand what it is being taught in the class by the teachers increases the Stress among students.

9. Examination systems are the biggest reason of stress among university students.

10. Future career thoughts are the biggest reasons for increasing University Students' stress level.

The responses of the respondents for each of the parameters mentioned above are measured against 5 point ordinal scales. The scale scores are as given below:

Strongly agree=5, Agree=4, Can't Say=3, Disagree=, 2 and Strongly Disagree=1.

Findings

The data collected from the students are computed and presented in relation to the objectives of the study under different headings as given below:

Levels of stress among university students

A) Levels of stress among university students gender wise

i) Gender wise number of students at a particular level of stress

Table No.-1: Gender wise number of students at a particular level of stress

Gender	Low level of stress	Moderate level of stress	High level of stress	Total No. of Students
	Score 21-30	Score 31-40	Score 41-50	
Male	8(16%)	36(72%)	6(12%)	50
Female	7(15.55)	31(68.88%)	7(15.55%)	45
Total	**15(15.78)**	**67(70.52%)**	**13(13.68%)**	**95**

It is seen from the above table that 13.68 % of the students are experiencing high level of stress, 70.52 % have moderate level of stress and 15.78 % of the students are having low level of stress.

Further, it is seen that 12 % of the male students are having high level of stress, 72 % have moderate level of stress and 16 % have low level of stress. And it is also seen that 15.55% of female students have high level of stress, 68.88 % have moderate level of stress

and 15.55 % have low level of stress.

ii) Mean scores of Stress between male and female students

It is seen from the above table that mean score of stress of male student is 34.93 and that of female is 34.72.Before concluding which mean score is greater than the other, let us test the significance of the difference of the two means.

Table No.-2: Gender wise number of students and mean score of stress

Gender	No. of respondents	Total score of Stress	Mean Score of Stress	Std. Deviation
Male	50	1772	35.44	4.64301
Female	45	1605	35.66	4.65149
Total	95			

iii) Independent Samples Test of significance of the difference in the mean score of stress male and Female.

Ho: There is no significant difference in the mean scores of stress between male and female students.

Ha: There is significant difference in the mean scores of stress between male and female students.

Table No.-3: Independent Samples Test of significance of the difference in the mean score of stress male and Female

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
score1	Equal variances assumed	.014	.905	-.237	93	.813	-.22667	.95487	-2.123	1.6695
	Equal variances not assumed			-.237	92	.813	-.22667	.95497	-2.123	1.6700

From the above table, Levene's Test for Equality of Variance indicates that F is insignificant, that is, variance of the distribution of female's score of Stress is equal to the variance of the distribution of male's score of stress.

So, for the equal variance assumed, t-statistics value (=-0.237) is not significant at ?=5% {since P-value (0.813)>0.05}. Therefore Ho is accepted. Hence, there is no significant difference in the mean scores of stress between male and female students. That is male and female have almost the same average level of stress.

B) Levels of stress among university students course wise

i) Course wise number of students at a particular level of stress

Table No.-4: Course wise number of students at a particular level of stress

Gender	Low level of stress	Moderate level of stress	High level of stress	Total No. of Students
	Score 21-30	Score 31-40	Score 41-50	
Graduate	7(21.21%)	22(66.66%)	4(12.12%)	33
Post Graduate	8(12.90%)	45(72.58%)	9(14.51%)	62
Total	**15**	**67**	**13**	**95**

It is observed from the above table that 12.12%, 66.66 % and 21.21 % of graduate students are experiencing high level of stress, moderate level of stress and low level of stress respectively where as 14.51%, 72.58 %and 12.90 % of postgraduate students are experiencing high level of stress, moderate level of stress and low level of stress respectively

ii) Course wise Mean scores of Stress of students
It is seen from the above table that mean score of stress of graduate student is 34.90 and that of Post graduate is 35.90. Before concluding which mean score is greater than the other, let us test the significance of the difference of the two means.

Table No.-5: Course wise number of students and mean score of stress

Gender	No. of respondents	Total score of Stress	Mean Score of Stress	Std. Deviation
Degree	33	1152	34.90	4.70875
Post Graduate	62	2226	35.90	4.57617
Total	95			

iii) Independent Samples Test of significance of the difference in the mean score of stress of Graduate Students and Post Graduate Students.
Ho: There is no significant difference in the mean scores of stress between Graduate and Post Graduate students.
Ha: There is significant difference in the mean scores of stress between Graduate and Post Graduate students. (table on next page)

From the table, Levene's Test for Equality of Variance indicates that F is insignificant, that is, variance of the distribution of Graduate Students' score of Stress is equal to the variance of the distribution of Post Graduate students' score of stress.

So, for the equal variance assumed, t-statistics value (= -1.029) is not significant at ?=5% {since P-value (0.306 >0.05}. Therefore Ho is accepted. Hence, there is no significant difference in the mean scores of stress between Graduate and Post Graduate students. That is Graduate and Post Graduate students have almost the same average level of stress.

C) Levels of stress among university students department wise.
i) Department wise number of students at a particular level of stress

Table No.-6: Independent Samples Test of significance of the difference in the mean score of stress between Degree students and post graduate students

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
score1	Equal variances assumed	.465	.497	-1.029	93	.306	-1.024	.99600	-3.002	.95342
	Equal variances not assumed			-1.020	63.802	.312	-1.024	1.0048	-3.032	.98303

Table No.-7: Department wise number of students at a particular level of stress

Gender	Low level of stress	Moderate level of stress	High level of stress	Total No. of Students
	Score 21-30	Score 31-40	Score 41-50	
Business Administration	2(7.14%)	21(75%)	5(17.85%)	28
Computer Science	11(21.15%)	36(69.23%)	5(9.61%)	52
Information Technology	2(13.33%)	10(66.66%)	3(20%)	15
Total	15	67	13	95

In Business Administration Department, it is observed from the above table that 17.85%, 75 % and 7.14 % of the students are experiencing high level of stress, moderate level of stress and low level of stress respectively.

In Computer Science Department, 9.61 %, 69.23 %and 21.15 %of students are experiencing high level of stress, moderate level of stress and low level of stress respectively.

In Information Technology Department, 20 %, 66.66%, and 13.33 % of students are experiencing high level of stress, moderate level of stress and low level of stress respectively.

ii) Department wise Mean scores of Stress of students

Table No.-8: Department wise number of students and mean score of stress

Gender	No. of respondents	Total score of Stress	Mean Score of Stress	Std. Deviation
Business Administration	28	1035	36.96	
Computer Science	52	1784	34.30	
Information Technology	15	558	37.2	
Total	95			

It is seen from the above table that mean score of stress of Business Administration Department is 36.96, and mean score of stress of Computer science Department is 34.30 and that of Information Technology Department is 37.2. Before concluding which mean score is greater than the other, let us test the significance of the difference of the three means.

iii) ANOVA for testing the significance of the difference in the mean score of stress of the different departments.

Ho: There is no significant difference in the mean scores of stress of students among the three different departments chosen for the study.

Ha: There is no significant difference in the mean scores of stress of students among the three different departments chosen for the study.

Table No.-9: ANOVA for testing the significance of difference in the mean score of stress among the three departments chosen for the study.

Sources of variation	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	177.096	2	88.548	4.446	.014
Within Groups	1832.441	92	19.918		
Total	2009.537	94			

It is seen from the above table that F ratio (4.446) is significant at P-value=0.014.That is Ho hypothesis is rejected al ? =5%. This means that the mean score of the stress among different departments are significant .That is the students of different Department have different average of stress level in the university.

Post Hoc test

Table No.-10: Multiple Comparisons of the differences in the score of
Stress among different departments

Dependent Variable: Total score of Stress in 10 parameters Tukey HSD

(I) Department	(J) Department	Mean Difference (I-J)	Std. Error	Sig.
Business Administration	Computer Science	2.65659(*)	1.04613	.034
	Information Technology	-.23571	1.42801	.985
Computer Science	Business Administration	-2..6566(*)	1.04613	.034
	Information Technology	-2.8923	1.30801	.075
Information Technology	Business Administration	.23571	1.42801	.985
	Computer Science	2.89231	1.30801	.075

* The mean difference is significant at the .05 level.

From the above table it reveals that there is significant difference in the mean difference of score of stress between Business Administration Department and Computer Science Department. This indicates that students of Business Administration Department have higher stress than that of Computer Science Department. The findings also indicate that there is no significant difference in the stress of the students between Business administration Department and Information Technology Department and between Computer Science Department and Information Technology Department.

6.2. Students' frequently used strategies to cope with stress

Table No.-11: Figures indicate a percentage of students belonging to a particular category in the column following a particular strategy/ activities in the corresponding row

Strategies/Activities	Male Students	Female Students	Graduate Students	PG Students	Dept of Bus. Admn.	Dept. of Comp. Sc.	Dept IT
Work out with exercise	10%	15.55%	12.12%	12.90%	14.28%	9.6%	20%
Confront the problem	12%	11.11%	12.12%	11.29%	7.14%	11.53%	20%
Take time out	34%	13.33%	18.18%	27.41%	35.71%	15.38%	33.33%
Self control	12%	20%	27.27%	9.67%	10.71%	11.53%	40%
Yoga meditation	16%	15.55%	27.27%	9.67%	7.14%	19.23%	20%

Seek help from other	16%	22.22%	21.21%	17.74%	25%	15.34%	20%
Listening Music	56%	60%	60.60%	53.22%	67.85%	46.15%	80%
Advance Planning	10%	17.77%	24.24%	8%	0%	17.30%	26.66%
Smoking and Drinking	28%	0%	6%	19.35%	25%	11.53%	6.66%

It is seen from the above table that the important three strategies that the male students used to minimise the stress level are Listening music, Take time out and Smoking& Drinking. For the female students three Important Strategies adopted are Listening Music, Seek help from others and self control. For the Graduate students Listening Music, Yoga meditation and Self Control are the important strategies. For PG students the three main strategies are Listening Music, Take time out and Smoking & Drinking.

For the department of Business Administration the three important strategies adopted by the students are Listening Music, Take time out and Seek help from others /Smoking & Drinking. For computer science Department Listening Music, Yoga meditation and Advance Planning are the important Strategies. And for IT department the three important strategies adopted by the students are Listening music, Self control and Take time out.

Conclusion

Following are the conclusion drawn from the study on Stress among University students of Assam University.

a) 13.68 % of the students are experiencing high level of stress, 70.52 % have moderate level of stress and 15.78 % of the students are having low level of stress.

b) Further, it is seen that 12 % of the male students are having high level of stress, 72 % have moderate level of stress and 16 % have low level of stress. And it is also seen that 15.55 % of female students have high level of stress, 68.88 % have moderate level of stress and 15.55 % have low level of stress.

c) Male and female have almost the same average

level of stress.

d) 12.12 %, 66.66 % and 21.21 % of graduate students are experiencing high level of stress, moderate level of stress and low level of stress respectively where as 14.51 %, 72.58%and 12.90 % of postgraduate students are experiencing high level of stress, moderate level of stress and low level of stress respectively.

e) Graduate and Post Graduate students have almost the same average level of stress.

f) In Business Administration Department, 7.85 %, 75 % and 7.14 % of the students are experiencing high level of stress, moderate level of stress and low level of stress respectively. In Computer Science Department, 9.61%, 69.23 %and 21.15 % of students are experiencing high level of stress, moderate level of stress and low level of stress respectively. In Information Technology Department 20 %, 66.66%, and 13.13 % of students are experiencing high level of stress, moderate level of stress and low level of stress respectively.

g) Students of different Department have different average of stress level in the university. There is significant difference in the mean scores of stress between Business Administration Department and Computer Science Department. This indicates that students of Business Administration Department have higher level of stress than that of Computer Science Department. The findings also indicate that there is no significant difference in the stress of the students between Business administration Department and Information Technology Department and between Computer Science Department and Information Technology Department.

h) Three important Strategies adopted by the students belonging to diffferent categories for reducing their stress are given below:

Table No.-12; Strategies adopted by the students for reducing their stress

Strategies/Activities						
Male students	**Female students**	**Graduate Students**	**PG students**	**Dept. Bus. Admn**	**Dept. Comp Sc.**	**Dept. IT**
Listening music	Listening Music	Listening Music,	Listening Music	Listening Music	Listening Music	Listening music
Smoking & Drinking	Seek help from others	Yoga meditation	Take time out	Take time out	Yoga meditatio	Self control.
Take time out	Self control	Self Control	Smoking & Drinking.	Seek help from other /Smoking & Drinking	Advance Planning	Take time out

All educational institutions should conduct stress management programmes like seminar/workshops, training programme on time management and advanced planning. Students should be encouraged to develop sound study habits, giving tips on money management, relationships building, providing recreation facilities, career counselling and guidance, attention to proper health-care facilities and pointing out the defects of dysfunctional coping strategies and bringing them to right path.

Students should also avoid the wrong ways of coping with stress. They should make regular habits of proper time management, right goal setting, practicing regular exercises, having adequate sleep and balanced nutrition, adopting appropriate relaxation methods and the like. These are some of the important measures that every student should adopt for minimizing their stress level.

In the right dose, stress can be healthy, or even enjoyable. However, it can be very damaging for students when stress becomes excessive. It can harm students' health, happiness, work performance, relationships and personal development. To avoid the undesirable disadvantages of stress, students should consider the causes of stress as it help students in making plan to reduce it.

References
A British Association for Counselling and Psychotherapy (BACP). Accessed on 22/11/2010 at http://www.thesite.org/workandstudy/studying/studentlife/studentstress

Abouserie, R. (1994). Sources and levels of stress in relation to locus of control and self-esteem in university students, Educational Psychology, Vol.14 (3), pp. 323-330.

Cannon, W.B. (1935). Stress and Strains of Homeostasis, American Journal of Medical Science, Vol. 189(1).

Chen, H., Wong, Y., Ran, M and Gilson, C. (2009).Stress among Shanghai University Students: The Need for Social Work Support, Journal of Social Work, Vol.9 (3), pp.323-344.

Foster, D. (1995). Report on student stress and suicide rates (London, Liberal Democrat Party).

Jaiprakash, I. and Bhogle, S. (1994). Coping strategies: Factor structure, sex differences and relationship with psychological distress, Journal of the Indian Academy of Applied Psychology, Vol.20 (1), pp.31-38.

Mansour, A.M.H. and Dawani, H.A. (2007). Social Support and Stress among University Students in Jordan, International Journal of Mental Health and Addiction, Vol. 6(3), pp.442-450.

Mechanic, D. (1978). Students under stress: A study in the social psychology of adaptation (Madison, University of Wisconsin Press).

National Institute for Occupational Safety and Health (1999), Stress at work, US, NIOSH.

Rao, S. (2006). Stress and its Management, AITBS Publishers, 1st ed.

Robotham, D and Julian, C. (2006). Stress and the higher education student: a critical review of the literature, Journal of Further and Higher Education, Vol. 30 (2), pp.107-117.

The Student Living Report (2004).