A STUDY ON STRESS LEVEL AMONG ENGINEERING COLLEGE STUDENTS IN VILLUPURAM DISTRICT, TAMILNADU

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ABSTRACT

Stress among college students is a common phenomenon and is part and parcel of their life. This paper was to investigate the sources of stress among engineering college students in villupuram district, Tamilnadu. A questionnaire survey was conducted to collect research data. A total of 193 questionnaires were distributed, and 184 valid responses were obtained. Research findings suggested the top five sources of stress were; change in sleeping habits, vacations/breaks, and change in eating habits, increased work load, and new responsibilities. The findings from this study may be further used to examine which sources of stress cause the highest levels of stress among college students, and may be helpful in creating stress management programs. Male students feel stronger stress from family factor than female ones; students in lower grades feel more stress from physical/mental and emotional factors; students who take an educational loan also feel more stress from physical/mental, school, and emotional factors than those who do not.

Keywords: Stress management, stress sources, stress control, lower grades, and emotional factors.

INTRODUCTION

The word stress is defined by the Oxford Dictionary as "a state of affair involving demand of physical or mental energy". a condition or circumstances which can distribute the normal physical and mental health of an individual. Stress is the tension and pressure that result when an individual views situations which present a demand that threatens to exceed his or her capabilities or resources. In stress uncertainty over the outcomes and outcomes must be important are the two important issue which must be satisfied. If an average student wants to qualify exam with distinction, it means there is an uncertainty about outcome but it will be important for that particular student. Lastly, potential stress of that student becomes actual stress. College students are at a critical period where they will enter adulthood. They are expected to be the elites in the society. Thus, they should enhance their stress management abilities so as to live a healthy life after entering the society. For college freshmen, they need

to not only adapt themselves to the new life and new environment but also be familiar with many new people, events, and things. The life stress on them is considerable. Therefore, understanding the sources of stress among them and how they can cope with the stress is very important.

Adolescence is a dangerous period of time where young people experience self organization and role confusion. For them, stress mainly comes from academic tests, interpersonal relations, relationship problems, life changes, and career exploration. Such stress may usually cause psychological, physical, and behavioral problems. According to statistics of 20010~2012, the number of suicide (including self-injury) cases is the highest among college/university students, and female students take a much larger proportion of the suicide (including self-injury) cases. Among the causes of suicide or self-injury, relationship problems are the leading cause, followed by depression and academic stress. Obviously, stress is the primary cause of suicide (or self-injury) among college/university students. As the number of college students in Tamilnadu has drastically increased in recent years, this study focused on college students in Tamilnadu to explore their stress sources and coping strategies through a Questionnaire survey. Stress management is important for all human being without stress an individual cannot survive. Engineering college students need to perform well in their studies as well as personal life, which create stress among students. But, if these stresses become extreme it can be destroy the academic and personal life of students. It can harm happiness, health, academic performance, group activity &co-operation, associations with others and personal development. Some form of stress can be good for us, but other types of stress disorders can cause major health problems and even be life threatening. It can be broke-down into four different categories:-Stress is not always harmful to individual; eustress is a positive and helpful type of stress. When an individual want to exert some physical force, they felt some kind of stress which called eustress. It prepare the whole body for the strength needed for whatever is about to occur. Distress is the negative the stress that the mind and body undergoes when the normal routine is constantly adjusted and altered. The mind is not comfortable with this routine, and craves the familiarity of a common routine. There are actually two types of distress acute stress (it comes immediately with a change of routine. It is an intense type of stress, but it passes quickly) and chronic stress (It will occur if there is a constant change of routine for week after week. Chronic stress affects the body for a long period of time).

Hyper Stress is the type of negative stress that comes when a person is forced to undertake more than he/she can take. More challenging college environment create hyper stress among students.

Hypo Stress is the final of the four types of stress is hypo stress. Hypo stress stands in direct opposite to hyper stress. That is because hypo stress is the right type of stress experienced by a person who is constantly bored while doing the same task like making assignment which was based on theoretical concept.

LITERATURE REVIEW

Assessment of stress levels in college students is a topic often examined by researchers. F Towbes and Cohen (2008) created the College Chronic Life Stress Survey in which they focused on the frequency of chronic stress in the lives of college students. This scale

contains items that persist across time to create stress, such as interpersonal conflicts, self-esteem problems, and money problems. They evaluated these stressors in relation to how many times a student had to deal with them on a weekly basis. They found that in regard to chronic stress, first-year students scored higher than other students. Similar studies have examined sources of

stress among both undergraduate (Gadzella, 2012) and graduate students (Rocha-Singh, 1994). Academic stress among students have long been researched on, and researchers have identified stressors as too many assignments, competition with other students, failures, lack of pocket money (Fairbrother and Warn, 2011), poor relationships with other students or lecturers, family or problems at home. Institutional (university) level stressors are overcrowded lecture halls, (Ongori, 2007; Awino and Agolla, 2008), semester system, and inadequate resources to perform academic work. Erkutlu and Chafra(2006) for instance opines that, when these events take place, an individual becomes disorganised, disoriented and therefore less able to cope up, thus resulting in stress related health problems. The pressure to perform well in the examination or test and time allocated makes academic environment very stressful (Erkutlu and Chafra, 2006; Polychronopoulou and Divaris, 2005; Misra and McKean, 2000).

In a higher learning institution such as University (Smith et al.,2000) where the demand placed on students is based on deadlines and pressure for excelling in tests or examination, students are likely to be the victims of stress. They must adjust to being away from home for the first time, maintain a high level of academic achievement, and adjust to a new social environment. College students, regardless of year in school, often deal with pressures related to finding a job or a potential life partner. These stressors do not cause anxiety or tension by themselves. Instead, stress results from the interaction between stressors and the individual's perception and reaction to those stressors (Romano, 1992). The amount of stress experienced may be influenced by the individual's ability to effectively cope with stressful events and situations (D'Zurilla & Sheedy, 1991). If stress is not dealt with effectively, feelings of loneliness and nervousness, as well as sleeplessness and excessive worrying may result (Wright, 1967). It is important that stress intervention programs be designed to address stress of college students. However, in order to design an effective intervention, the stressors specific to college students must be determined (Wright, 1967). The dynamic relationship between the person and environment in stress perception and reaction is especially magnified in college students. The problems and situations encountered by college students may differ from those faced by their nonstudent peers (Hirsch & Ellis, 1996).

The environment in which college students live is quite different. While jobs outside of the university setting involve their own sources of stress, such as evaluation by superiors and striving for goals, the continuous evaluation that college students are subjected to, such as weekly tests and papers, is one which is not often seen by non-students (Wright, 1964). The pressure to earn good grades and to earn a degree is very high (Hirsch & Ellis, 1996).

From the above literature review of stress, we formulate few objectives of research which will help and guide us for smooth conduction of research and these are:

   (i) To find out the common symptoms of stress among the engineering college students.

   (ii) To find out the most common stressors among the engineering college students.

(iii) To know the relationship existing between demographic variables and stress level.

(iv) To provide suggestions for students how to cope up with stress related to college life.

RESEARCH METHODOLOGY

This study was carried on by adopting descriptive design. The sample size consists of 184 college Students (106 males, 78 females) of engineering colleges in villupuram district, Tamilnadu.

The Student Stress Survey (SSS) was used to determine the major sources of stress among college students. The scale consisted of 40 potentially stressful situations. The scale addressed interpersonal, intrapersonal, academic, and environmental sources of stress. The items in the scale were also classified as either daily hassles or major life events. The top five sources of stress were; change in sleeping habits, vacations/breaks, and change in eating habits, increased work load, and new responsibilities. The findings from this study may be further used to examine which sources of stress cause the highest levels of stress among college students, and may be helpful in creating stress management programs.

The Student Stress Survey was created for this study based on the Student Stress Scale (Insel, & Roth, 1985), the Taylor Manifest Anxiety Scale (Taylor, 1953), and other potential sources of stress that were identified by the researchers. The survey consisted of 40 items that were divided into 4 categories of potential sources of stress: six items representing interpersonal sources of stress, 16 items representing intrapersonal sources of stress, eight items representing academic sources of stress, and 10 items representing environmental sources of stress. Interpersonal sources result from interactions with other people, such as, a fight with a boyfriend or girlfriend or trouble with parents; Intrapersonal sources result from internal sources, such as, changes in eating or sleeping habits. Academic sources arise from school-related activities and issues, such as, an increased class workload or transferring schools. Finally, environmental stressors result from problems in the environment, outside of academics.

RESULTS AND DISCUSSION

- All the engineering colleges of sample respondents are approved by AICTE, New Delhi.

- Out of 184 samples, 106 are male, 78 are female.

- The entire sample respondents are full time students in their respective colleges.

- Out of 184 students, 62 students are studying in first year, 34 in second year, 43 in third year and 45 in final years.

- All students who are undertaken as samples are studying only in UG courses.

- The analysis of data shows that 87 students are from rural areas, 64 are from semi urban and 33 are from urban areas as native place.

- It has also been observed that 163 samples are not doing any part time job.

- It is also observed that 133 students are having close friends.

- It has also been observed that 125 students are not having girl friend/boy friend (lover).

- The distribution of responses was as follows: 27% of the stressors were intrapersonal, 31% environmental, 31% interpersonal and 11% academic.

Common Stress Symptoms Found in College Students

- General irritability

- Elevated heart rate

- Increased blood pressure

- Increased accident proneness

- Floating anxiety-anxious feeling for no specific reason

- Trembling

- Insomnia

- Headaches

- Indigestion

- Pain in neck and/or lower back

- Changes in appetite or sleep pattern

Ho 1: There is no systematic association between gender of the students and their degree of stress level.

Chi-SquareTests	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	863(a)	4	0.907
Likelihood Ratio	.849	4	0.927
Linear-by-Linear Association	.309	1	0.564
N of Valid Cases	184		

0 cells (.0%) have expected count less than 5. The minimum expected count is 10.05.

From the chi-square test output table we see that a significance level of 0.907 has been achieved. This means the chi-square test is not showing a systematic association between the above two variables at 95 % confidence level. Hence the null hypothesis is accepted and we conclude that at 95% confidence level, there is no systematic association between gender of the students and their degree of stress level.

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.069	0.907
	Cramer's V	.045	.907
	Contingency Coefficient	.066	.907
N of Valid Cases		184	

A. Not assuming the null hypothesis.

B. Using the asymptotic standard error assuming the null hypothesis.

From the obtained value of directional measure, phi correlation coefficient, Cramer's V and Contingency Coefficient, it can be inferred that there is weak association between the dependent and independent variable, 0.069 (phi correlation coefficient), 0.045 (Cramer's V) and 0.066 (contingency coefficient) are closer to 0 than 1. This leads us to conclude that the degree of stress level among engineering college students is independent irrespective of their gender.

Ho 2: There is no systematic association between studying year of the student and their degree of stress level.

Chi-Square Tests

	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	189.949(a)	12	0.000
Likelihood Ratio	81.067	12	.000
Linear-by-Linear Association	72.648	1	.000
N of Valid Cases	184		

6 cells (80.0%) have expected count less than 5. The minimum expected count is **.15.**

From the chi-square test output table we see that a significance level of 0.000 has been achieved, where p<0.05. This means the chi-square test is showing a systematic association between the above two variables even at 95 % confidence level. Hence the null hypothesis is rejected and we conclude that at 95% confidence level, there exits systematic association between studying year of the student and their degree of stress level.

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	1.051	.000
	Cramer's V	0.607	.000
	Contingency Coefficient	0.724	.000
N of Valid Cases		184	

A. Not assuming the null hypothesis.

B. Using the asymptotic standard error assuming the null hypothesis.

From the obtained value of phi correlation coefficient ,Cramer's V and Contingency Coefficient, it can be inferred that there is strong association between the dependent and independent variable, as the value of 0.740(directional measure), 1.051 (phi correlation coefficient), 0.607 (Cramer's V) and 0.724(contingency coefficient) are closer to 1 than 0. This leads us to conclude that the degree of stress level among engineering college students dependent on studying year of the student

Ho 3: There is no systematic association between native place of the student and their degree of stress level

Chi-Square Tests	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	10.796(a)	8	.214
Likelihood Ratio	11.540	8	.173
Linear-by-Linear Association	2.616	1	.106
N of Valid Cases	184		

9 cells (60.0%) have expected count less than 5. The minimum expected count is .01.

From the chi-square test output table we see that a significance level of 0.214 has been achieved, where p≥ 0.05. This means the chi-square test is not showing a systematic association between the above two variables even at 95 % confidence level. Hence the null hypothesis is accepted and we conclude that at 95% confidence level, there is no systematic association between native places of the student and their degree of stress level.

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.251	0.214
	Cramer's V	.177	.214
	Contingency Coefficient	.243	.214
N of Valid Cases		184	

A. Not assuming the null hypothesis.

B. Using the asymptotic standard error assuming the null hypothesis.

From the obtained value of phi correlation coefficient, Cramer's V and Contingency Coefficient, it can be inferred that there is no association between the dependent and independent variable, as the value of 0.205 (directional measure), 0.251 (phi correlation coefficient), 0.177 (Cramer's V) and 0.243 (contingency coefficient) are closer to 0 than 1. This leads us to conclude that the degrees of stress level among students and native places of the students are independent of each other.

Ho 4: There is no systematic association between extent of relationship with friends of the student and their degree of stress level.

Chi-Square Tests

	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	83.267(a)	6	0.000
Likelihood Ratio	95.206	6	.000
Linear-by-Linear Association	21.652	1	.000
N of Valid Cases	184		

5 cells (41.7%) have expected count less than 5. The minimum expected count is .28.

From the chi-square test output table we see that a significance level of 0.000 has been achieved, where p≤ 0.05. This means the chi-square test is showing a systematic association between the above two variables even at 95 % confidence level. Hence the null hypothesis is rejected and we conclude that at 95% confidence level, there is systematic association between extent of relationship with friends of the student and their degree of stress level.

Symmetric Measures

		Value	Approx. Sig.
Nominal byNominal	Phi	.696	.000
	Cramer's V	.492	.000
	Contingency Coefficient	.571	.000
N of Valid Cases		184	

A. Not assuming the null hypothesis.

B. The asymptotic standard error assuming the null hypothesis.

From the obtained value of phi correlation coefficient, Cramer's V and Contingency Coefficient, it can be inferred that there is strong association between the dependent and independent variable, as the value of 0.375 (directional measure), 0.696 (phi correlation coefficient), 0.492 (Cramer's V) and 0.571 (contingency coefficient) are closer to 1 than 0. This leads us to conclude that the degrees of stress level of college students and relationship with friends of students have strong association.

Ho 5: There is no systematic association between practice of student's religion and their degree of stress level.

Chi-Square Tests

	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	141.257(a)	16	.000
Likelihood Ratio	118.729	16	.000
Linear-by-Linear Association	26.982	1	.000
N of Valid Cases	184		

17 cells (68.0%) have expected count less than 5. The minimum expected count is .04.

From the chi-square test output table we see that a significance level of 0.000 has been achieved, where p≤ 0.05. This means the chi-square test is showing a systematic association between the above two variables even at 99 % confidence level. Hence the null hypothesis is accepted and we conclude that at 95% confidence level, there is no systematic association between practice of student's religion and their degree of stress level.

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.906	.000
	Cramer's V	.453	.000
	Contingency Coefficient	.672	.000
N of Valid Cases		184	

A. Not assuming the null hypothesis.

B. Using the asymptotic standard error assuming the null hypothesis.

From the obtained value of phi correlation coefficient , Cramer's V and Contingency Coefficient, it can be inferred that there is strong association between the dependent and

independent variable, as the value of 0.681(directional measure), 0.906 (phi correlation coefficient), 0.453 (Cramer's V) and 0.672(contingency coefficient) are closer to 0 than 1. This leads us to conclude that the degree of stress level among engineering college students is strongly associated with practice of student's religion.

SUGGESTIONS AND RECOMMENDATIONS

For Students

- ✓ The best way to handle stress is to not get more stressed about being stressed. If you're stressed out, admit it and figure out how to handle it. Focusing on it will only make things seem worse.

- ✓ Being in college means your sleep schedule is, most likely, far from ideal. Getting more sleep can help your mind refocus, recharge, and rebalance. Sometimes, one good night's sleep can be all you need to hit the ground running amidst a stressful time.

- ✓ Go eat something balanced and healthy: fruits and veggies, whole grains, protein.

- ✓ Have the time to exercise. Fair enough, but if you're feeling stressed, it may be that you need to squeeze it in somehow. Exercise doesn't necessarily have to involve a 2-hour, exhausting workout at the campus gym. It can mean a relaxing, 30-minute walk while listening to your favorite music. In fact, in a little over an hour, you can 1) walk 15 minutes to your favorite off-campus restaurant, 2) eat a quick and healthy meal, 3) walk back, and 4) take a power nap.

- ✓ Don't forget that your brain is like a muscle, and even *it* needs a break every once in a while! Take a break and see a movie. Grab some friends and go out dancing. Having a social life is an important part of your college experience, so don't be afraid to keep it in the picture when you're stressed. It could be when you need it most!

- ✓ You may be stressed about one particular thing: You basically just need to sit down and plow through it. If this is the case, try to figure out how to make it a little more fun and enjoyable

- ✓ Figure out which things are causing you the most stress and how you can take a step back from each. And then, most importantly, take that step.

- ✓ If you're afraid of dumping too much on a friend, most colleges have counseling centers specifically for their students. Don't be afraid to make an appointment if you think it will help.

For College Authorities

- ✓ The colleges need to develop a stress free and academic conducive environment for learning. To overcome the problem of stress among students, colleges should employee more qualified and experienced lecturers to recover the staff shortage.

- ✓ Colleges try to carry out the facilities of internet and computer station for the students which help them in submitting assignments, presentation and other related

tasks. Management colleges should also conducting some time management seminar which help students of management manage their time wisely.

✓ Colleges or institute assign faculty mentors who encourage students or help them in the career prospects and motivate to do better performance. These mentors also help students" subjects which they find more difficult. These mentors not only help their mentee in academic life but they also give suggestion on their problems related to personal life.

✓ Colleges should conduct some sessions or seminars with the help of experts on stress reduction which include both conceptual as well as experimental stress problem and their remedies.

✓ Apart from academic stress colleges should also try to minimize the interpersonal conflict among students. Of course it will be very difficult task for those students who are not residing in the college hostel. But, if the college administration should try to minimize the interpersonal conflict of holsters, it will definitely help to other students also.

✓ However, it is true that academic activities will never run without stress. But colleges try to minimize the potential sources of stress among students like overcrowded lecture halls, inconvenient computer lab, lots of assignment etc. which often create stress among students.

CONCLUSIONS

From the findings, the results clearly indicate that students are stressed. The well-known symptoms of stress among the students are indigestion, changing in sleeping habit, anxiety, nervousness, shoulder or neck pain, tension etc. Psychological pressure to perform well in examinations, tests, attending of lecture and expectation from family, uncertainty of getting job, competition with fellow students, and lower grade than anticipation were among common sources of the students stress. From the study it was also clear that, the major causes of stress among students are academic workload, inadequate available resources, and continuous poor performance, low motivation etc. And if these stress are at their high level students felt lot of pressure which create problem to students for preparing and passing the examination.

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