

Influences accountable for stress at undergraduate level

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Abstract:

Stress exists in everyday life and is caused by various factors. The trend in studying stress includes factors originated from the individual internal environment and in response to the external environment. (Hussien and Hussien, 2006). Stress related factors have been grouped by researchers as environmental factors, personal factors, academic factors and others. The purpose of the present study is to find out important influencers for stress for undergraduate students.

For the present study, Review of literature and group discussions were undertaken to find out various stressors. Further study attempts to determine the validity of selected factors which cause stress for undergraduate students from the city of Surat. Semi-structured Questionnaire was developed to collect primary data. The sample consisted of 97 respondents who are undergraduate students from the Surat city. The collected data was analyzed and interpreted by applying factor analysis.

The study attempts to identify valid and reliable influences accountable for stress for undergraduate students of first year from arts and commerce stream.

1. Introduction

Stress is increasingly becoming a part of our daily lives. Historically, the Latin word “stress” has been in common language since the seventeenth century and was used to address hardship, adversity, or affliction. However, stress is best described as a situation where environmental demands exceed the capacity for effective response by the individual and can potentially have physical and psychological consequences (E. R. Stucky, T. R. Dresselhaus, A. Dollarhide et al., 2009).

Coping with stress, on the other hand, is important for human survival and can be defined as the process of managing external or internal demands that are perceived as taxing on personal capacities and resources (E. R. Stucky, T. R. Dresselhaus, A. Dollarhide et al., 2009).

Over the past decades, there has been a growing belief for all the streams of education that the experience of stress among students at school or college level has undesirable consequences for their health and safety and for the health of the society at large. This belief has been reflected both in public and media interest and in increasing concern voiced by them. A lot of research has been carried out for employees facing job related stress, majority of them focusing women employees. Many studies have been conducted about work related health problems. But similar kind of endeavour is found to a lesser extent in the education field, especially in India.

Our students may seem to be happy-go-lucky on the face, but many of them would be experiencing stressful conditions in life. The researcher thinks so, on account of their changing phase of life. College brings in new friends and their culture, fashion, dialect, language, lifestyle which may be new for many of the students. They may find it difficult to cope up with all these; some who cannot cope slash down in isolation. Another big reason is the problem of not having enough spending capacity. It may be possible that very few would have this capacity, and all others may simply and unnecessarily follow this mad rush.

Reviews show that students under stress show low performance in their studies. Their results drop down gradually. The students face social, emotional and physical and family problems which may affect their learning ability and academic performance (Fish & Nies 1996; Chew-Graham, Rogers, & Yassin 2003). It was also observed that this drop down is seen from the figures of number of students and classes from F.Y. to T.Y. Therefore, the study attempts to identify valid and reliable stressors for undergraduate students.

2. Literature Review

College students, especially freshmen, are particularly prone to stress due to the transitional nature of college life, where college life compels students to acquire entirely new social skills and also to take responsibility for their own personal needs (Hindwai, 2015). According to Greenberg and Baroon (2000) stress is personal, physiological and emotional reactions against stimulus.

According to Hirsch and Ellis (1996), the dynamic relationship between a person and the 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 non-student peers. Personal and environmental events that cause stress are known as stressors. Feng (1992) and Volpe (2000) defined stressor as anything that challenges any individual's adaptability or stimulates an individual's body or mentality.

Participants in this study were college students enrolled in two reputed colleges of Mannarkkad city (Palakkad district, Kerala). Degree students who were pursuing their studies in different streams namely Arts, Commerce and Science were selected. They were in between the age group of 18-21 years.

The Student Stress Surveys have been conducted based on Stress Scale (Insel, & Roth, 1985), the Taylor Manifest Anxiety Scale (Taylor, 1953), The Student Stress Survey (SSS), Ross, Neibling, and Heckert, (1999), Perceived Stress Scale (Perceived Stress Scale - Mind Garden [Internet], 2015 and others.

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).

Chen, Wong, Ran and Gilson (2009) conducted a study to describe the relationship between college stress, coping strategy and psychological well-being; they used (342) students in (6) universities. The study has proved that psychological well-being has a negative relationship with college stress and a positive coping

strategy has significant buffering effects on psychological health problems. Tajularipin, Vizata and Saifuddin (2009) found that 29% of the students experienced medium stress.

Kranz (2008) conducted a study used to evaluate stress levels experienced by students in a pharmacy curriculum. Data were collected using an individual interview that consisted of both a demographic and stress questionnaire. The results indicated that: students rated stress to be average to above average, with a mean score of 3.8 out of 5.

Dr. Ramnik J. Yadav has also written a chapter on Stress Management in his book entitled Management: New Thoughts and Directions. In this chapter, the personal factors affecting stress and its effects, as well as the issues that arise due to stress have been clearly depicted.

Udai Pareek in his book entitled Understanding Organisational Behaviour has discussed stress in a chapter on Coping with Frustration, Stress and Burnout. Here he has specified that burnout is the result of stress not properly coped with. The burnout stage is characterized by emotional exhaustion, depersonalization and a reduced sense of accomplishment.

Well known author Fred Luthans has discussed about Emergence of Stress in a chapter on Stress and Conflict in his book on Organisational Behaviour. The basic factor, he has detected is of new environment demands, that lead to the emergence of stress.

Dr. S. S. Khanka has also discussed about stress in depth, in a chapter on Job Stress in his book on Organisational Behaviour. Like other authors and books, here also the theory limits on stress among employees. P. SubbaRao has also written a book on Organisational Behaviour, where in a chapter is on Stress Management. Apart from other topics, he has discussed about gender differences and about balancing work and family life. Another well-known author Stephen P. Robbins in his book on Organisational Behaviour has talked about Time Constraint as a major stressor.

Dr. Niraj Kumar has discussed Stress Consequences and Medical Help for stress in a chapter on Stress Management in his book on Organisational Behaviour: A New Look, Concept, Theory and Cases. Kenneth B. Matheny, David W. Aycock and Christopher J. McCarthy have written an article on Stress in School-Aged Children and Youth, in Educational Psychology Review, Vol. 5, No.2, 1993. They also have concluded that there is a paucity of research on stress in children as compared to research on stress in adults.

Robert D. Brown, Steve Bond, James Gerndt, Lu Ann Krager, Barbara Kranty, Mark Lukin and Dave Prentice have jointly conducted a survey study entitled Stress on Campus: An Interactional Perspective, published in Research in Higher Education, Vol.24, No.1. They have found out that time pressure, work overload and interpersonal relationships are major stressors, which they say can be implicated/incorporated for administrative policy and FDPs.

Journal of Education for Social Work, Vol.20, No.3, shows a survey study entitled Stress Among Graduate Social Work Students: An Empirical Study, authored by Carlton E. Munson. In the study, he has found out that 'class standing' did produce significant differences in stress level of these students.

H. Thompson Fillmer has written an article in Middle School Journal, entitled Helping Students Cope With Stress. This article itself is highlighted with a caption: “Teachers aren’t the only ones who suffer from stress”. ArieShirom has conducted a research study entitled Students’ Stress, with an objective to identify stresses perceived by undergraduate students.

Research on Stress Management Among Campus Students is a working paper authored by T. V. Ramana, M. Satyanarayana and V. V. RatnajiRaoChowdary in Voice of Research. They have found some stress factors among students and measured them on Likert’s scale. Their major finding is that students who were counseled by their parents or teachers were relieved from stress. They also gave importance to yoga and meditation.

Sources of Stress among College Students is another paper authored by Shannon E. Ross, Bradley C. Niebling and Teresa M. Heckert. Conductig a Student Stress Survey (SSS), they have found out five major stressors from 40 potentially stressful situations, among 100 students of Midwestern University. Four out of five major stressors are lifestyle related and one they say is prone to ‘freshers’ whom they call ‘freshmen’.

College Chronic Life Stress Survey is a survey conducted by Towbes and Cohen, wherein they have focused on the frequency of chronic stress in the lives of college students. It was found that with regard to chronic stress, first year students scored higher than other students.

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3. Objective

The objective of the present study is to validate factors that influence stress in undergraduate students.

4. Research Methodology

This study was undertaken to check validity and reliability of the factors influencing stress in undergraduate students from the Surat city. The source of data collected for the study is primary. The data has been collected through questionnaire method. Data was collected from total 97 respondents. A semi-structured questionnaire was developed based upon in-depth literature review and group discussions to find out factors influencing stress.

Statistical tool used to analyze the data with reference to the selected objectives of the study is Factor analysis. Collected data was analysed using Statistical Package for Social Sciences (SPSS).

Limitations of the Study

The study is limited to Surat city. Present study is restricted to validating factors influencing stress in undergraduate studentsof first year from arts and commerce stream. Sample size is small.

Data Analysis and Discussion

Content validity was determined by discussions with researchers and literature review. Cronbach's α was used to assess internal consistency reliability and Exploratory factor analysis was used to measure validity of items using varimax rotation method. A total of 97 first year undergraduate students responded to the questionnaire.

Testing of Adequacy and Reliability

Table 1 below shows the results of KMO and Bartlett's Test.

Table - 1: KMO and Bartlett's Test

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.680
Bartlett's Test of Sphericity	Approx. Chi-Square	224.976
	df	91
	Sig.	.000

Kaiser-Meyer-Olkin (KMO) test and Bartlett's test of sphericity was applied to measure the sampling adequacy. The sample was considered adequate as the KMO value was more than 0.5 and Bartlett's test was significant (p-value less than 0.05).

The approximate of Chi-square is 224.976 with 91 degrees of freedom, which is significant at 0.05 Level of significance. The KMO statistic of 0.680 is also large (greater than 0.5).

Extraction of Factors

The initial components are the numbers of the variables used in the Factor Analysis. Factor analysis was undertaken for 13 variables (stressors) influencing stress through the questionnaire. Out of 13, only 5 core factors are extracted by combining the relevant variables. Total variation observed on the basis of **Initial Eigen values** in the responses on 10 variables was more than 60 %.

Table 2 below shows Rotated Component Matrix.

Table – 2: Rotated Component Matrix

	Component				
	1	2	3	4	5
Do transportation problems irritate you?				.710	
Does noise or other atmospheric pollution bother you?	.652				
Do you have difficulties due to language problem?					.753
Do you problem of Procrastination at certain times?	.594				
Do you have the pressure of exams?	.606				
Are you concerned about your image in the eyes of other people?		.608			

Do you find interruption of family and social events in daily activities?			.809		
Do you feel the 24 hour syndrome?			.710		
Do you find difficulty in communication and remain unclear in conveying your message?			.702		
Do you get along easily with anyone?					.767
Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.					

The rotation sums of the squared loading represent the distribution of the variance after the varimax rotation with Kaiser Normalisation. The varimax rotation tries to maximize the variance of each of the factor. Rotated component matrix shown in table 2 depicts five factors derived from the factor analysis. Based on the common implication seen among the statements in each group, appropriate names were given to factors.

Names of Core Factors

Table 3 below shows the names of core factors (factor constructs).

Table - 3: Names of the Core Factors

Factors	% of variance	Factor interpretation	Variables included in the factors	Loading
F1	14.675	Travelling problems	Do transportation problems irritate you?	.710
			Does noise or other atmospheric pollution bother you?	.652
F2	28.428	Upholding reputation	Do you have difficulties due to language problem?	.753
			Do you face the problem of Procrastination at certain times?	.594
			Do you have the pressure of exams?	.606
F3	40.629	Societal pressure	Are you concerned about your image in the eyes of other people?	.608
			Do you find interruption of family and social events in daily activities?	.809
F4	50.715	Pressure of accomplishments	Do you feel the 24 hour syndrome?	.710
			Do you find difficulty in communication and remain unclear in conveying your message?	.702
F5	59.498	Standoffishness	Do you get along easily with anyone?	.767

Above table shows five factor constructs which are as follows:

F1: Travelling problems: while travelling everyday from home to college and back home, students find problems of non-availability of public transport; even if they have their own vehicle, their minds are flooded with traffic jams, as well as the noise pollution occurring due to blaring horns. Transport and Atmospheric pollution adds to the stress levels.

F2: Upholding reputation: Language is the biggest problem for many students; the most humiliating part is not being good in English language. They may be English medium students, but not powerful in speaking and/or understanding the same; Gujarati medium students already suffer the inferiority complex. Delay in

completing a certain work, supposedly easy and simple for others is also something that they cannot digest for themselves. Pressure of exams adds to their stress.

With these three variables where they lag, students find difficulty in upholding their reputation among peers.

F3: Societal pressure: These students are at such an age where they find all watchful eyes upon themselves. They are in constant pursuit of maintaining their image and impression.

They come under stress when family insistence or any other social event interrupt their plans.

F4: Pressure of accomplishments: The age of these students is such that life brings them responsibilities one after other, but they are not so matured to handle and balance the same. This is when they find that they have less time to accomplish various tasks assigned.

Their communication clarity is also not so much wherein they can convey everything what is in their minds. This brings stress to them that they are not able to fulfill and accomplish what is expected from them.

F5: Standoffishness: Students are not able to get along easily with anyone, which shows their level of stress. Otherwise at this youthful age, a friendly nature is more expected out of them.

The findings show that the five core factors (constructs) influencing stress are valid to determine stressors among undergraduate students.

5. Conclusion:

The present study has explored the possible factors influencing stress among undergraduate students of first year from arts and commerce stream. The main factors derived are Travelling problems, Upholding reputation, Societal pressure, Pressure of accomplishments and Standoffishness. Study can be further extended by including stress factors from more dimensions of stress. Study can also be undertaken with large sample size. Also confirmatory factor analysis may be undertaken to test and verify the hypothesis that a relationship between the observed variables and their underlying latent constructs exists.

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