

WHAT FACTORS AND HOW THEY AFFECT STRESS: EVIDENCE FROM UNIVERSITY STUDENTS

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Abstract

The study primarily attempted to determine the stress level of university students and identify the factors causing stress. Convenience sampling was used to collect data and Perceived Stress Scale was used to determine the stress level and the factors that affecting stress level were determined by using multiple linear regression model. Findings from the study show that most of the students (58.06%) feel medium stress. But only 16.06% students feel low stress and 26.80% students feel high stress. Some factors were identified in the study which affects the stress level such as unnecessary writing of practical notebooks and overloaded academic study ($p=0.0489$), uncertain job opportunities ($p=.01$) and ongoing education life($p=0.02$).

Key words: Perceived Stress Scale (PSS), Sylhet.

INTRODUCTION:

Globally, at any given time 20% to 25% of students are stressed (Kumaraswamy N. Academic, 2018), and 50% of students may feel stress in the form of anxiety and depression (Regehr, 2013). University students have to adjust too many psychosocial variations besides coping with the academic and social demands in preparing themselves for their professional careers (Uehara *et al.*, 2010). However, while at university the only task students were expected to do was to study and that studying was never supposed to be stressful. But what proved to be stressful was the expectations that parents had for their children, which in time turned into a tremendous burden that these children were not able to carry anymore(Reddy *et al.*, 2018). So, stress occurs when the demand on students exceeds their ability to adjust. Blake and Vandiver (1988) reported that university students often try to control their stress level through evading, which can produce negative effects on emotional and physical health.

On the other hand, academic stress has been acknowledged as the prime cause of these alarming high stress levels. Lee & Larson (2000) explain this kind of stress as an interface between the environmental stressors, student's review and reactions for the same. Some of the common stressors reported in an academic setting include overloaded assignments, poor time management and social skills, peer competition, etc. (Fairbrother & Warn, 2003). So, we see that the educational system also plays an aiding role which then leads to increased stress levels that are being experienced by students. Some of the sources also described report the causes of stress such as overcrowded lecture halls, semester grading system, insufficient resources and facilities (Awing & Agolla, 2008); unlimited syllabus (Agrawal & Chahar, 2007; Sreeramareddy *et al.*, 2007); long working hours and expectations of conditional learning (Deb *et al.*, 2015).

Depression, anxiety, behavioral problems, irritability, etc. are scanty of the many problems which are reported by students with high academic stress (Deb *et al.* 2015; Verma *et al.*, 2002). Females are reported to have higher levels of depression,

anxiety and stress which can be attributable to biopsychosocial issues such as social roles and physiological status (Bangasser *et al.*, 2010; Dyrbye *et al.*, 2006; Zaid *et al.*, 2007). Bayram and Bilgel (2008) reported that high frequency of depression, anxiety and stress are 27.1%, 47.1% and 27.0%, respectively, among a group of Turkish university students. This is constant with other studies which stated high rates of psychological morbidity among university students globally (Adewuya *et al.*, 2006; Ovuga *et al.*, 2006; Tomoda *et al.*, 2000; Wong *et al.*, 2006).

Incidences of depression were also found among stressful youths as it is connected with incapacity to focus, fear of failure, negative estimation of future, etc. (Busari, 2012). The bureau registered 1.8% students who committed suicide due to failing in examinations and an 80% rise in suicide rates during a one-year time frame which has turned into a grave reality that is termed as a "career stopper" (Kadappatti&Vijayalaxmi, 2012).

Among university, the newly admitted students had higher reactions to stress than the senior students perhaps due to the difficulty in adjusting to new environment (Aysan *et al.*, 2001). As the stress level of university students is increasing globally and becoming a major issue, but in Bangladesh, there are few publish documents on university students except some study conducted on medical college student, Maternal and child and Stress relation with Job satisfaction. A study was conducted to measure the stress among medical students in Bangladesh which found about 50% students of medical college both private and public suffer academic stress (Eva *et al.*, 2015). Another study of was conducted to measure stress among undergraduate level of medical students which showed that about 40% students suffer from moderate stress and 29% students suffered from severe stress (Sultana, N. 2011). So, the study concentrates to determine the stress level and the factors affecting stress level among university students in Bangladesh especially in Sylhet Division.

The research question of this study is to measure the stress and the identify the factors which affect the stress level of university students.

METHODS OF THE STUDY

Methodology

Students studying in different universities in Sylhet Division were interviewed to collect the data. Data from 107 respondents were collected but 5 data was removed by outlier test and some questionnaires were incomplete so 93 respondent's data were used for analysis. The study was accustomed convenience sampling to collect data. A questionnaire was developed to gather information from the students. The questionnaire was distributed through email, different types of social media and the selected universities representative. The Statistical Package for Social Sciences (SPSS) version 23 was used for statistical analysis.

Measurement Instruments

Perceived Stress Scale (PS) was used to determine the stress levels of the university students. It measures the degree to which situations in one's life are appraised as stressful. The questionnaire was used to assess the feelings and thoughts of the students involved. There were 10 questions in the scale and reactions of the students ranged from 0-never to 4-very often. But 4, 5, 7 and 8 questions are scored revised than the 6 questions because all of the questions are positive and the rest are negative.

The multiple linear regression mode was accustomed to determine the factors that influencing stress level. The multiple linear regression formula is below:

$$y_i = \beta_0 + \beta_1 x_{i1} + \beta_2 x_{i2} + \dots + \beta_p x_{ip} + \epsilon$$

Here,

where, for $i=n$ observations

y_i =dependent variable

x_i =explanatory variables

β_0 =y-intercept (constant term)

β_p =slope coefficients for each explanatory variable

ϵ =the model's error term (also known as the residuals)

The study categorized the PSS score into three divisions where 0-14 represented low stress, 15-27 represented medium stress and finally 28-40 measured the high stress. Pearson chi square was used to determine the correlation with stress level for every question of PSS score.

$$Y = a + b_1 x_1 + b_2 x_2 + b_3 x_3 + b_4 x_4 + b_5 x_5 + b_6 x_6 + b_7 x_7 + b_8 x_8$$

Here,

Table 2:- Chi square value of the measurement question with stress score

Stress measurement question	Mean	Standard Deviation	PearsonChi Square
1. In the last month, how often have you been upset because of any unexpected events?	2.323	1.0766	0.461
2. In the last month, how often have you felt that you were unable to control the important things in your life?	1.677	1.2487	0.042
3. In the last month, how often have you felt nervous and "stressed"?	2.581	1.1187	0.168
4. In the last month, how often have you felt confident to handle your personal problems?	1.258	0.8932	0.102
5. In the last month, how often have you felt that things were going your expected way?	2.387	0.9892	0.024
6. In the last month, how often have you found that you could not adjust with the things that you were doing?	1.903	1.1649	0.021
7. In the last month, how often have you been able to control disturbance in your life?	1.839	1.0676	0.196
8. In the last month, how often have you felt that you were the best of your activities?	2.548	0.9605	0.872
9. In the last month, how often have you been angry because of things that were outside of your control?	2.613	1.3084	0.879
10. In the last month, how often you have so much difficulties were so high that you could not overcome them?	1.452	0.9946	0.278

The study found that the mean of the 5 questions (1, 3, 5, 8, and 9) is 2. It means all of the events occurred 'sometimes' in the previous month. On the other hand, mean of the rest of the questions is around 1. The questions 4 and 7 are positive questions so the score of those questions were reversed than

Y= PSS score, x_1 = Age, x_2 = Physical Health, x_3 = Frequent exam, x_4 = Assignment and Study, x_5 = Close friends, x_6 = Uncertain job opportunities, x_7 = Family problems and x_8 = Ongoing education life.

The variables took into consideration during the conduct of study defined below:

PSS score	Scale
Age of the respondents	Scale
Assignment and Study	Binary, where 1=yes, 0=no
Close friends of the respondents	Scale
Uncertain Job opportunities	Binary, where 1=yes, 0=no
Family problems	Binary, where 1=yes, 0=no
Frequency of the exam	Binary, where 1=yes, 0=no
Ongoing education life	Binary, where 1=yes, 0=no

Results and Discussion:

The study surveyed 42 male students and 51 female students who are currently studying in university at different levels. The results show that the average age of university students is 21.774 years. The study also considers the expense of the students on that basis the result showed the average income of the students was 5381 Tk per month. The lowest expense incurred by students was 2200 Tk and highest expense was 8800 Tk per month.

Table 1:- Stress Level of the University Students

Name	Frequency	Percentage
Low Stress	15	16.12
Medium Stress	54	58.06
High Stress	24	25.8
Average	93	33.32

Table1:- shows the percentage and frequency of stress of university students. The study found that only 15 students had low stress i.e. 16.12% students reported low stress. On the other hand, most of the students experienced medium stress and the percentage is 58.06%. Though levels of high stress were lower than medium stress but still it is high than low stress. The derived level of high stress was 25.80%.

The descriptive statistics of each question incurred by PSS method is shown on the table below –

other questions. For that reason, the study showed that most of the students' preference for questions 4 and 7 is 'fairly often' in the previous months. But in case of questions 2, 6, 10 most students answered 'almost never' meaning the events related of those questions hardly happened in the last month. Pearson chi

square test is also shown in the above table (Table-2) which is based on PSS score. It shows the effect of each question on PSS score. The study found that only 2, 5 and 6 question have 5% level of significant with PSS score. It means 'unable to control' important things in life, unable to adjust what students were doing and their perception on work as their expected way have significant relation with stress level of the students.

Table 3:- Factors affecting Stress level

Name	Coefficient	t test	Sig
Constant	-6.892	0.015	0.05
Age of the respondent	1.041	0.733	0.229
Physical Health	-3.49	-1.281	0.231
Frequency of the exam	3.579	1.775	0.08
Assignment and study	3.226	1.6	0.05
No of Close Friends	-3.06	-0.154	0.129
Uncertain Job opportunities	1.289	-0.462	0.01
Family problems	2.66	0.76	0.886
Ongoing education life	7.093	0.664	0.02
R square	0.65		

Table-3 represents the multiple linear regression model to determine the factors that affects the stress level of the university students. The study found negative constant coefficient meaning if all of the variables remain constant than stress level of university students decreases. The model determines some variables which have significant effect on the stress levels. For example, assignment and academic study of the students has 5% significance with the stress level. If a 1% increase in assignment and study occurs in a student's life than stress will be increased by 3.226%. Uncertain job opportunities are also quite significant with stress score at 1% and the coefficient at 1.2890. It means that if uncertain job opportunities increase by 1% than stress will be increased by 1.2890%. Students also feel stressed for their ongoing education life. It has 5% level of significance with stress score and coefficient is 7.093

CONCLUSION

Stress among university students is now a global issue. Many researchers found that most of the university students feel stress for their education and academic life. In Bangladesh, the education system is not as good as in developed countries. In a developing country, job opportunity for any university student is also very poor. For many reasons' students feel stress in Bangladesh. Socio economic condition and academic life plays a vital role for increasing stress of any university students. It negatively affects both his/her personal life and career.

The overall findings from the study reports that maximum university students feel medium stress and the percentage is about 58.06%. On the other hand, the percentage of low and high stress is 16.12% and 25.80% respectively. This study identified 3 main reasons why students feel stress in their life. Extra pressure from assignment and study which is not realistic to their expectation plays an important role for stress. Moreover, uncertain job opportunities and ongoing educational life are mainly responsible for stress of university students in Bangladesh.

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