Research Paper

Prevalence of Mental Illness among University Students: A Cross-Sectional Study

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ABSTRACT

The present study was conducted to investigate the status of mental disorders. A total of 300 respondents were selected randomly from Rajshahi University as a sample for the study. Bangla version of (Alim et al., 2014) Depression, Anxiety, Stress Scale (DASS- 21) was used to measure mental illness of the respondents. Obtained data were analyzed by employing descriptive statistics, through IBM SPSS Version-25.0. The survey found that 59.7% of respondents suffered from mild to extremely severe stress symptoms, 79.3% of students had mild to extremely severe anxiety symptoms and 70.3% experienced mild to extremely severe depressive symptoms, respectively.

Keywords: *Prevalence, mental illness, university students*

Mental disorder or psychological disorder refers to a psychological condition that is followed by suffering, incapacity, an elevated risk of mortality, or a significant loss of autonomy (DSM-IV). The prevalence of mental disorders is growing at an alarming pace in Bangladesh. The frequency among adults varied from 6.5 percent to 31 percent, while the rate among children ranged from 13.4 percent to 22.9 percent. People have a pessimistic outlook on the concept of getting treatment for mental health issues (Hossain et al., 2014). In Bangladesh, nearly 17 percent of adults experience mental health difficulties, where 16.8 percent of males and 17 percent of females, and 92.3 percent of them are not interested in receiving medical help for their conditions. Based on the report, 14% of children aged seven to seventeen suffer from mental health difficulties, and 94.5 % of those youngsters are hesitant to speak with a professional (Sarkar et al., 2021). So, stress, depression, and anxiety are so prevalent in contemporary communities that these disorders could not ignore (Storrie et al., 2010; WHO, 2014).

In a research showed that 57.05 percent of individuals exhibited mild to extremely severe symptoms of stress. Over half of the respondents (61.97%) expressed mild to extremely severe depressive mood, and one-fourth (26.6 percent) experienced moderate to very severe anxiety levels (Sayeed et al., 2020). A current cross-sectional research was done on Bangladeshi adults and concluded that the percentage of anxiety and depressive symptoms

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was 33.7 percent and 57.9 percent, correspondingly, while 59.7 percent indicated moderate to very severe levels of stress (Banna et al., 2022). A survey was undertaken on the incidence of depression, anxiety, and stress besides the relevant risk determinants among students of university in Bangladesh (Mamun et al., 2019). They discovered that just over half of the students (52.2%) were depressed, 58.1 percent had anxiety problems, and 24.9 percent experienced stress at moderate to extremely severe levels. They also found that students coming from lower-class families were at high risk for depression.

Bangladesh is a densely populated and developing country. Many people in our country suffer from many mental disorders. But they give less importance to this problem. To lead a happy and healthy life, both physical and mental health is important. A vast number of students in Bangladesh also suffer from mental health issues. They are at high risk. Mental health issues hampered their daily life and education. They seek treatment for their physical health problems but they are not willing to receive treatment for their psychological difficulties. Concerningly, the number of students with mental health difficulties is on the rise. Therefore, this study aims to estimate the prevalence of mental disorders among university students.

MATERIALS AND METHODS
Study setting, design, and population
The target population of this study was the students of Rajshahi University. This was a cross-sectional study conducted among randomly selected students of Rajshahi University. The data collection period was from January to April- 2022.

Sample size and sampling technique
A total of 300 students were selected randomly as a sample of the study. Their education qualification was honors (first year) to master. The age range of the respondent is 18 to 26 years.

Data collection tools
The respondent's information was gathered by using the following instruments. Which are as follows
- Personal Information Form (PIF)
- Depression Anxiety Stress Scale (DASS - 21)

The following instruments are described below:
A personal Information form
A personal information form was utilized to gather respondents' demographic information such as age, gender, educational background, residential area, and socioeconomic status.

Depression Anxiety Stress Scale (DASS - 21)
The validated Bangla version of the Depression, Anxiety, Stress Scale (DASS- 21) was used to conduct the study. The original version of DASS was created in 1995 by SH Lovibond & PF Lovibond in English to assess depression, anxiety, and stress among the respondents (Lovibond et al., 1995). It consists of 42 items and it has three different set of self-rated scales to detect the negative affective states of anxiety, stress, and depression. Instead of the full DASS, a short-form version of this scale developed by the same researchers can be used. Each subscale on this scale has seven questions. The short version of DASS-21 was translated into Bangla by Alim et al., in 2014. On this scale, the correlation for the anxiety subscale was 0.917, the correlation for the stress subscale was 0.931 and the depression

subscale had a correlation of 0.976. Cronbach's Alpha values for the Depression, Anxiety, and Stress subscales were 0.987, 0.957, and 0.964, respectively. The DASS-21 assesses psychological disorders on a dimensional rather than categorical basis. The following are the cut-off scores that are used for the standard severity categorization (normal, moderate, and severe): The final score will be calculated by multiplying the DASS-21 scores by two.

Scores of the DASS scale were given bellow

	Depression	Anxiety	Stress
Normal	0-9	0-7	0-14
Mild	10-13	8-9	15-18
Moderate	14-20	10-14	19-25
Severe	21-27	15-19	26-33
Extremely severe	28+	20+	34+

Data collection procedure and technique
Before administrating the instruments, the significance of the study was explained to the participants. Then the respondents were assured that their answers were used only for academic purposes and would be kept confidential. Demographic information forms and scales of measurement were provided to the respondents. Before, respondents were instructed to have a look at the questionnaire. The respondents were also given verbal instructions before taking response. They were told to check one relevant box and put a tick mark (✓) and not leave any blanks on the form. They were also instructed that there was no right or incorrect response and that there was no time restriction to respond. After the collection of all surveys from participants, each questionnaire is examined to see if there is any omission. If any omissions were discovered, respondents were asked to correct them again. The responders were thanked for their spontaneous cooperation when the survey was completed. At next scores were calculated for all collected questionnaires. The entire collected information was inputted in SPSS software. And finally,the result had been done.

Study variables
- Independent Variable: Gender, residence, academic year.
- Dependent Variable: Depression, anxiety, and stress.

Data analysis
Statistical analysis
Data were analyzed through IBM SPSS statistics version, 25. A frequency table was used to summarize the basic information of respondents. Descriptive statistic was performed to calculate the rate of students who suffer from depression, anxiety, and stress. Binary Logistic regression was performed to identify the associated factors of symptoms of DAS. To explore the clear idea about how intensely different factors are influencing the outcomes, variables are categorized into two types i.e, depressed and non-depressed; anxious, and non and non-anxious and stressed and non-stressed.

Ethical Consideration
All the ethical standards were maintained when conducting this study. The participants were informed about the nature and objectives of the study. Then, they were assured that they had a free choice to accept or refuse participation in this study, and thus participant's informed consent was obtained. All participation was voluntary and without any reward.

RESULT

Sample Distribution of the Study

Table 1 Frequency distribution of the demographic characteristics of the respondent

	Frequency	Percentage (%)
Sex of the respondent		
Male	152	50.7
Female	148	49.3
Total	300	100
Residence of the respondent		
Urban	156	52
Rural	144	48
Total	300	100
Socio-economic Status		
Higher class	19	6.3
Middle class	233	77.7
Lower class	48	16
Total	300	100
Academic Year		
First	72	24
Second	85	28.3
Third	63	21
Forth	45	15
Masters	35	11.7
Total	300	100
Faculty		
Faculty of science	81	27
Faculty of biological science	33	11
Faculty of engineering	35	11.7
Faculty of arts	36	12
Faculty of social science	39	13
Faculty of law	22	7.3
Faculty of business studies	54	18
Total	300	100

Descriptive statistics for all variables are presented in Table 1. The proportion of male respondents (50.6%) was higher than male students (49.4%).Most respondents came from urban areas (51.2%), were from middle class family (78.8%), were studied in second year (34.6%), and were lived in private hostel (54.4%).

Table 2: Prevalence of stress, anxiety and depression among the respondents

	Score range	Category	N	Percentage (%)
Stress	0-14	Normal	121	40.3
	15-18	Mild	49	16.3
	19-25	Moderate	70	23.3
	26-33	Severe	38	12.7
	34+	Extremely Severe	22	7.3
Anxiety	0-7	Normal	62	20.7
	8-9	Mild	31	10.3
	10-14	Moderate	69	23

	15-19	Severe	55	18.3
	20+	Extremely Severe	83	27.7
Depression	0-9	Normal	89	29.7
	10-13	Mild	50	16.7
	14-20	Moderate	76	25.3
	21-27	Severe	45	15
	28+	Extremely Severe	40	13.3

Results in Table 2 showed that, among the participants, 59.7% suffered from stress symptoms (mild 16.3%, moderate 23.3%, severe 12.7%, and extremely severe 7.3%). The majority (79.3%) of participants reported symptoms of anxiety (mild 10.3%, moderate 23%, severe 18.3%, and extremely severe 27.7%). Many respondents (70.3) experienced depressive symptoms (mild 16.7%, moderate 25.3%, severe 15%, extremely severe 13.3%).

DISCUSSION AND CONCLUSION

The present study was conducted to investigate the status of mental disorders. Three hundred respondents were selected randomly from different departments of Rajshahi University. Among them 152 were male and the rest of the 148 were female students. To measure the mental illness (stress, anxiety, and depression) of the respondents Bangla version of Depression Anxiety Stress Scales (DASS 21) was used (Alim et al, 2014). A personal information form was also administered to collect some relevant socio-demographic characteristics of the respondents. Descriptive statisticswere employed to analyze the results of the study.

The findings of the cross-sectional survey in Table 2 indicate that nearly 59.7% of respondents experienced mild to extremely severe levels of stress. Results also show that 79.3% of respondents reported mild to extremely severe levels of anxiety. The prevalence estimates for depression ranging from mild to extremely severe was 70.3% in the current study. Compared to the previous Bangladeshi study, the prevalence of depression, anxiety, and stress in the present study was higher than in other studies (Sayeed et al., 2020; Banna et al., 2022; Mamun et al., 2019; Alim et al., 2015). The result is obvious because after a long vacation, due to the pandemic, students are under pressure to study. They face difficulties to adjust this pressure. In recent times, many families have experienced financial problems because of COVID-19 which also worsens students' mental health. Students do not get qualitative support from their family members or friends. Some students become anxious about their careers.

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