Research Article

Prevalence of Psychological Distress Involving Stress, Anxiety and Depression and Its Association with Life Satisfaction and Related Factors Among MBSTU Students

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Received: March 04, 2024 **Accepted:** April 09, 2024 **Published:** April 16, 2024

Introduction

Mental health issues are one of the most serious issues in Bangladesh. Societal, biological, and psychological factors all have an impact on mental health [9,19].

The term 'Depression' is commonly used in describing a negative or unpleasant feeling that interfere with one's ability to operate. In other aspects, depression is defined as a feeling of unease that impacts one's normal tasks. Negative attitudes toward the surroundings, people, and oneself can result from psychological discomfort. It has the potential to influence a person's thinking, attitude, motivations, emotions as well as entire wellbeing [4].

Austin J Psychiatry Behav Sci Volume 10, Issue 1 (2024) www.austinpublishinggroup.com Rahman MM © All rights are reserved

Abstract

Background: Psychological distress including stress, anxiety and depression affects the young generation and the educated are most prone to this mental problem.

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Purpose: The goal of this research is to find out the prevalence and association of psychological distress as well as life satisfaction among university students with some associated factors.

Methodology: From February to March 2020, 425 undergraduate and graduate students participated in a cross-sectional study using a self-administered questionnaire that included sociodemographic questions, as well as the Bangla Depression, Anxiety, and Stress Scale-21 (BDASS-21) and a life satisfaction scale. Descriptive analyses, Chi-square, Fisher's exact, Mann-Whitney U, and Kruskal– Wallis tests as well as Pearson's correlation were used to meet the objective.

Results: The students' average age was 22.67 years (SD 2.017). Only 21.6% students were satisfied with their life, while 62.1 %, 63.5 %, and 63.5 % had mild to extreme severe levels of stress, anxiety, and depression, respectively. Female gender was highly connected with high levels of depression, anxiety and stress scores. Higher anxiety and depression scores were significantly associated with aging, and higher school years. Also, depression as well as life satisfaction levels were found to be significantly (P < 0.05) linked.

Conclusion: It can be concluded that the overall prevalence of stress, anxiety, and depression was found to be high among students. Proper counselling by psychologists could help students to think positively about life. It is recommended that university should appoint at least one counsellor and one psychologist to help students to overcome challenges.

Keywords: Stress; Anxiety; Depression; Life Satisfaction

Depression is defined as chronic melancholy, a loss of enthusiasm or enjoyment in formerly worthwhile or pleasurable activities, and a decline in energy, According to World Health Organization (WHO). Loss of confidence, low self-esteem, excessive guilt, suicidal thoughts, tiredness and impaired focus, as well as sleep and food disruptions are some of the other symptoms [22]. Nearly seven million people in Bangladesh suffer from depression and anxiety respectively [26]. Depression, however, is relatively rare and untreated due to stigma, an absence of proper treatments, and a paucity of assets for mental wellbeing. Approximately half of the worldwide people grew up in a country where there are only two psychiatrists for every one lakh inhabitants [17].

Citation: Ahmed A, Sumi SN, Rahman MM. Prevalence of Psychological Distress Involving Stress, Anxiety and Depression and Its Association with Life Satisfaction and Related Factors Among MBSTU Students. Austin J Psychiatry Behav Sci. 2024; 10(1): 1099.

Anxiety is an emotion characterized by feelings of strain, worried thoughts, and physical changes such as increased blood pressure. Anxiety is a generalized mood disorder that occurs without identifiable triggers [16]. 10-35% of university students have a "functional effect on test anxiety" [2,15].

Stress can be defined as any type of change that causes a state of physical, emotional, or mental distress or tension that may result from hostile or challenging situations. Stress is the way one's body reacts to anything that needs attention or action [3].

According to WHO, depression is a common mental disorder affecting more than 264 million people worldwide [25]. According to the new WHO figures, the proportion of individuals suffering from depression climbed by more over 18% between 2005 and 2015. Over 80% of this sickness trouble is among individuals living in low-and center pay nations [22]. Bangladesh National Mental Health Survey (2018-19) revealed that 16.8 percent of people over the age of 18 and 13.6 percent of the children in Bangladesh suffer from any mental disorders ranging from depression, anxiety, stress to neurodevelopmental disorders [24]. Around 450 million individuals endure from a psychological or behavioral syndrome and almost one million people take their own lives every single year. Neuropsychiatric illnesses (melancholy, alcoholism, schizophrenic disorder, and manic-depressive psychosis) account for four out of the top six causes of ailment [24]. One out of every four families has at least one person who suffers from a psychiatric illness [23]. Individuals suffering from psychological illnesses generally rely on family persons as primary caretakers [24].

Albeit emotional well-being issues influence society all in all yet university students have a higher rate of mental issues as contrast with everybody. University students are facing these psychological problems the most when they are away from family and close people in need of education. Future ambitions, unfulfilled expectations, frustration, etc., gradually lead to a brighter future with the worst consequences, such as suicide. A 2016 study by the National Institute of Mental Health and Research found that about one-third of the country's population suffers from mental health problems and has never been diagnosed by a professional [13].

One more ongoing review directed among the northern Bangladeshi alumni understudies announced that depression, anxiety, and stress were all prevalent at 49.6%, 53.2 %, and 26.4 % respectively [11,12]. A study shows that about 11,000 people commit suicide in Bangladesh every year and the majority of them are students. There were reports, show a sharp increase in the number of suicides among university students in 2018, with 19 students from five public universities having committed suicide that year [7]. There are numerous variables that may foresee student's life fulfillment; psychological well-being is one of exceptionally imperative amid all of them. Several research shows that psychological state affects life fulfillment, and those who have fewer depressive symptoms seem to be more content with their lives [5,18].

Due to lack of knowledge concerning emotional wellness issues in Bangladesh, the psychological well-being of the country's youth demands our exceptional consideration. In this think about we surveyed university students about their mental trouble, such as depression, anxiety and stress as well as their gratification with life.

Methodology

Research Design and Setting

A cross-sectional study was conducted in Mawlana Bhashani Science and Technology University (MBSTU) in Santosh, Tangail, Bangladesh from February to March, 2020, among students in the first through fourth academic years, as well as Masters. They were mostly residential and from rural areas.

Sample Population

Mawlana Bhashani Science and Technology University is Bangladesh's twelfth most seasoned public university as well as the country's second science and technology-focused institution consisting of 5671 students and fifteen departments under five faculties. A purposive sample of students from first through master's academic years who were accessible in class were welcomed to partake in the research, and self-directed questionnaires were delivered at the ending of their sessions after clarifying the goal of this research. It took roughly twenty minutes to complete the questionnaire. A total of 425 completed surveys were received out of 500 given, representing an 85 percent participation rate. Test size was determined utilizing detail Calc, by utilizing the accompanying information; prevalence rate = 0.5 or, 50%, significance level = 0.05, and study power = 0.8 or, 80%. Along these lines, the base sample size needed for this study was 377 students, while the sample size used was 425.

Ethical Consideration

Formal study approval was obtained from the appropriate authorities of Science Faculty at Mawlana Bhashani Science and Technology University. Before collecting data, ethical consent was granted from the heads of individual faculty and departments. Besides, prior to filling out the questionnaire, all respondents gave their verbal assent, confidentiality of data was ensured and had the right to withdraw from the study.

Research Aids

The data was collected using a self-directed survey that has been pre-designed containing informed consent, sociodemographic data (age, academic year, gender, marital status, residence place, education levels of father's and mother's, academic performance, socioeconomic standard, and monthly expenditure), and along with Bangla Depression Anxiety and Stress Scale-21 (BDASS-21) and life fulfillment scale.

Bangla Depression Anxiety and Stress Scale-21 (BDASS-21): A self-reporting tool for determining depression, anxiety, and stress levels is the Depression Anxiety Stress Scale [10]. Bangla Depression Anxiety Stress Scale (BDASS-21) is a scale of 21-item that may be a brief adaptation of the initial scale of 42-item. The Bangla edition of the DASS-21 was employed in this study [1]. This scale contains 21 questions to assess the negative psychological conditions of depression, anxiety and stress with 7 items per scale. Every item is rated on a four-point Likert scale ranging from 0 (doesn't applicable to me at all) to 3 (very much applicable to me). For each questionnaire, an overall score was calculated separately for stress, anxiety, and depression. To characterize the levels of depression, anxiety, and stress in our current study, ratings ranging from mild to severe were utilized. The Life Satisfaction Scale: This scale comprises of five statements that are responded on a 1-7 scale, indicating the respondent's concurrence with every statement by putting the equivalent number just on each statement's line. And the scale on a 7-point is:

1 = strongly disagree, 2 = disagree, 3 = slightly disagree, 4 = neither agree nor disagree, 5 =slightly agree, 6 =agree, 7 =strongly agree on a 7-point scale: (scope of potential scores is 5-35). Higher scores show more significant levels of life fulfillment [6].

Body measurements: Participants' self-perceptions of their weight, height, and blood pressure had all been recorded.

System for data modification and scoring framework

The following steps were taken to ensure that the data collected was accurate and complete: –

By dividing the weight (kilograms) by the square of the height (meters), the BMI was computed. A person with 25 kg/m^2 or more is said to be Overweight, and a BMI of 30 kg/m^2 or more is called obesity [21].

The modified Fahmy and El-sherbini Social Score [8,20] was used to calculate the socio-economic score. The following items are included in this framework: Crowding Index (persons per room = number of family members/number of rooms in your house): <2 = 3, 2 = 2, >2 = 1.

Employment status of parent (Father/Mother): Employed = 2 and not employed =1.

Schooling status of parent (Father/Mother): 1 for Illiterate or literate, 2 for Primary, 4 for Secondary, 6 for Higher Secondary, & 8 for University or higher.

Does your family's income cover all of your family's expenses?

• Sure, and Save = 4, Sure, but no savings = 3, Occasionally = 2, No = 1

• When it comes to sanitation including water, electricity and garbage removal?

• All of Three = 3, two of three = 2, one of three = 1.

• The general societal scoring is characterized into four levels: Less than 15 represents extremely low societal standards, 15 to 19 represents poor societal standards, 20 to 24 represents moderate societal standards, and 25 to 30 represents excellent societal standards.

Lovibond scoring scale: For items scoring, Likert - type scale is used ranging on a 0–3 scale for Depression, Anxiety and Stress, and the scales are formed by adding the items within every scale (ranging 0–42). To get the ultimate score, the BDASS 21 needed to be increased by multiplying with 2 (Table 1).

Statistical Analysis

The data analysis was done with SPSS version 23 and summarized utilizing mean and standard deviation of age, as well as the median and Interquartile Range (IQR) of stress, anxiety and depression scores. For qualitative factors, such as psychological distress and life satisfaction, frequencies and percentages for different categories were computed. Besides descriptive **Table 1:** Scale for Lovibond scoring for mental state of mind.

Depression	Anxiety	Stress
0-9	0 – 7	0-14
10-13	8 – 9	15 – 18
14 - 20	10-14	19 – 25
21 – 27	15 – 19	26 – 33
28+	20+	34+
	0-9 10-13 14-20 21-27	0-9 0-7 10-13 8-9 14-20 10-14 21-27 15-19

analyses, Pearson Product Moment co-efficient of correlation was computed. For comparing qualitative variables, the chisquare and Fisher's exact tests were used, while for scores, the Mann-Whitney U test and Kruskal–Wallis tests were used. At last, p-esteem was assigned to a 95% confidence interval i.e. a p esteem lower than or break even with to 0.05 indicates statistical significance.

Results and Discussion

Students' Sociodemographic Attributes

Table 2 represents mean or percentage distributions of the socio-demographic characteristics of the students. **Table 2:** Students sociodemographic attributes (total student 425).

Variables	Categories	No. of Respondents				
	18–20 years	71	16.7			
Age	21–23 years	184	43.3			
	24–27 years	170	40			
Mean age (±SD)	22.67±2.017					
Gender	Male	237	55.8			
Gender	Female	188	44.2			
Marital status	Single	401	94.4			
	Married	24	5.6			
Permanent place of	Town	204	48.0			
residence	Village	221	52.0			
	Very low	70	16.5			
Socioeconomic	Low	85	20.0			
Standard	Middle	145	34.1			
	High	125	29.4			
	First	51	12.0			
	Second	58	13.6			
Academic Years	Third	70	16.5			
	Fourth	114	26.8			
	Masters	132	31.1			
	Engineering	73	17.2			
	Life Science	168	39.5			
Faculty	Science	124	29.2			
,	Business Studies	27	6.4			
	Social Science	33	7.8			
	Upper (3.50-4.00)	166	39.1			
Academic perfor-	Medium (3.00- 3.49)	178	41.9			
mance (CGPA)	Low (2.00-2.99)	30	7.1			
	N\A	51	12.0			
	Residential	269	63.3			
Present Living Place	Non-Residential	156	36.7			
	Illiterate or read	35	8.2			
		53	12.5			
Father's Education	Primary Secondary	85	20.0			
	Higher Secondary	103	20.0			
	University or	103	24.2			
	Higher	149	35.1			
	Illiterate or read	<u> </u>				
	and write	33	7.8			
	Primary	103	24.2			
Mother's Education	Secondary	103	32.9			
	Higher Secondary	97	22.8			
	University or					
	Higher	52	12.2			
	≤ 4 members	177	41.6			
Family size	5–7 members	198	46.6			
	≥ 8 members	50	11.8			
	≤ 3,000	29	6.8			
Monthly expenditure	3,001 - 4,000	88	20.7			
of respondent (in TK)	4,001 - 5,000	151	35.5			
	> 5,000	157	36.9			

Table 2 exposed the mean or percentage distribution of the students who took part in the research. There were 425 students in all, with an average age of 22.67 years (with SD 2.017). Among all, majority of the students (83.3%) were over 20 years old. They were separated into three age gatherings: the primary age bunch (18–20) years with a level of 16.7%, the subsequent age bunch (21–23) years with a level of 43.3%, and accordingly the last age bunch (24-27) years 40.0%. The male understudies were addressed by 55.8% where the female understudies were addressed by 44.2%. More than half of the students were from the rural area with percentage of 52.0% and the remaining half of the students were from urban area; more than three-fifths of the students (63.3%) were residential and those who were married represented by low percent (5.6%). Over 30% of students were classified as having a very low or poor socioeconomic status. 17.2% of the students were from Engineering faculty, 39.5% of the students were from Life Science faculty, 29.2% of the students were from science faculty, 6.4% of the students were from Business Studies faculty, and 7.8% of the students were from Social Science faculty. Almost half of respondents (46.6%) came from a family of five to seven individuals. For fathers, the greatest degree of education stated was University or Higher (35.1%), while for mothers the greatest degree of education stated was Secondary (32.9%). And over a third of respondents (36.9%) revealed a month-to-month consumption of >5,000 taka (BDT), while just 6.8% of the respondents announced a month-to-month use of \leq 3,000 taka (BDT).

Table 3 illustrates the frequency and rates in every classes of depression, anxiety, stress, life fulfillment & suicidality. The aggregate rates of depression level among students are 155 **Table 3:** Psychological disorders, Life Satisfaction and Suicidality.

Variables	Categories		No. of Respondents	Percentage
	Normal		155	36.5
Depression	Mild		71	16.7
	Moderate		90	21.2
	Severe		61	14.4
	Extremely Se	vere	48	11.3
	Normal		155	36.5
	Mild		38	8.9
Anxiety	Moderate		101	23.8
	Severe		42	9.9
	Extremely Se	vere	89	20.9
	Normal		161	37.9
	Mild		79	18.6
Stress	Moderate		70	16.5
	Severe		78	18.4
	Extremely Severe		37	8.7
	Extremely Dissatisfied		2	0.5
	Dissatisfied		20	4.7
	Slightly Dissatisfied		59	13.9
Level of Life Satisfaction	Neutral		127	29.9
Satisfaction	Slightly Satisfied		125	29.4
	Satisfied		81	19.1
	Extremely Sa	tisfied	11	2.6
Suicidality	Ideation	No	352	82.8
	ideation	Yes	73	17.2
	Plan	No	378	88.9
		Yes	47	11.1
		No	409	96.2
	Attempt Yes		16	3.8

(36.5%) scoring normal, 71 (16.7%) scoring mild, 90 (21.2%) score was moderate & 61 (14.4%) score severe & only 48 (11.3%) score extremely severe. In case of anxiety, 36.5% score normal, only 8.9% score mild, 23.8% score moderate, 20.9% score extremely severe, whereas only 9.9% scoring severe; Finally, when it comes to stress, 37.9% evaluate themselves as normal; 18.6% assess themselves as mild, 16.5% assess themselves as moderate and 18.4% assess themselves as severe, also just 8.7% assess themselves as extremely severe level of stress. In case of life satisfaction, 0.5% students were tremendously disappointed with their life and 4.7% students was disappointed with their life, also the degree of other level of life fulfillment was Slightly Dissatisfied (19.9%), Neutral (29.9%), Slightly Satisfied (29.4%), Satisfied (19.1%) and Extremely Satisfied (only 2.6%). And there were 17.2% students whom had suicidality ideation, 11.1% students planned for suicide & 3.8% of total studied students attempted for suicide.

The Rate of Mental Illnesses among Respondents

Table 4 reveals that 62.2% of study participants were stressed, with a higher incidence among females contrasted with guys (p value = 0.043); the proportion of stress in females was 66.5% (mild - to - moderate 33.5 %, high - to - extreme high 33.0 %) and 58.7% in guys. Anxiety was prevalent in 63.5% of undergraduates & graduates, with females (70.2 %) having a higher frequency than guys (58.2%) (p value = 0.024). The prevalence of depression among students was 63.5% with females (70.3%) having a higher frequency than guys (58.2%) (p value = **Table 4:** Psychological disorders, Life Satisfaction also the student's weight estimations by gender.

		Male	Female	Total	Chi-	р	
Variables	Categories	No (%)	No (%)	No (%)	square test	value	
	Normal	98(41.4)	63(33.5)	161(37.9)			
	Slight to modest	86(36.3)	63(33.5)	149(35.1)	6.298	0.043	
Stress	High to extremely high	53(22.4)	62(33.0)	115(27.1)	0.230	0.045	
	Normal	99(41.8)	56(29.8)	155(36.5)			
	Slight to modest	75(31.6)	64(34.0)	139(32.7)	7.44	0.024	
Anxiety	High to extremely high	63(26.6)	68(36.2)	131(30.8)	7.44	0.024	
	Normal	99(41.8)	56(29.8)	155(36.5)		0.025	
	Slight to modest	84(35.4)	77(41.0)	161(37.9)	6.682		
Depression	High to extremely high	54(22.8)	55(29.3)	109(25.6)	0.002	0.035	
Life	Dissatisfied Score <=25	192(81.0)	141(75.0)	333(78.4)	2.235	0.425	
Satisfaction	Satisfied (Score >25)	45(19.0)	47(25.0)	92(21.6)	2.235	0.135	
	Underweight	10(4.2)	21(11.2)	31(7.3)			
	Normal	169(71.3) 151(80.		320(75.3)	23.415	0	
BMI	Overweight & Obese	58(24.5)	16(8.5)	74(17.4)	23.413	U	
Self-	Low	15(6.3)	44(23.4)	59(13.9)			
reported	Normal	182(76.8)	125(66.5)	307(72.2)	37.061	0	
BP (blood	High	17(7.2)	0(0.0)	17(4.0)			
pressure)	Don't know	23(9.7)	19(10.1)	42(9.9)			

Table 5: Respondents' stress, anxiety, and depression risk factors included demographics, physical activity, and weight.

		Normal	Slight to modest	High to extremely high	Chi-square test	p value	
Stress		Total = 161	Total = 149	Total = 115			
Students Age	> 22 years (n =238)	88(54.7)	76(51.0)	74(64.3)	4.878	0.087	
student's Socio-economic status	Poor & extremely poor (n =155)	60(37.3)	54(36.2)	41(35.7)	1.746	0.782	
Educational years	Third, fourth & master's years (n =316)	119(73.9)	107(71.8)	90(78.3)	1.442	0.486	
Body weight/ Actual category of BMI	Overweight and obese students (n =74)	21(13.0)	30(20.1)	23(20.0)	3.44	0.179	
Residence	Urban students (204)	79(49.1)	70(47.0)	55(47.8)	0.137	0.934	
Conjugal status	Wedded student(n=24)	12(7.5)	8(5.4)	4(3.5)	2.023	0.364	
Exercising practice	Three or more times a week (n=63)	25(15.5)	17(11.4)	21(18.3)	2.515	0.284	
Anxiety	1	Total = 155	Total = 139	Total = 131			
Students Age	> 22 years (n =238)	68(43.9)	78(56.1)	92(70.2)	20.019	0	
student's Socio-economic status	Poor & extremely poor (n =155)	55(35.5)	48(34.5)	52(39.7)	5.822	0.213	
Educational years	Third, fourth & master's years (n =316)	104(67.1)	99(71.2)	113(86.3)	14.733	0.001	
Body weight	Overweight and obese students (n =74)	24(15.5)	24(17.3)	26(19.8)	0.943	0.624	
Residence	Urban students (204)	74(47.7)	71(51.1)	59(45.0)	0.993	0.609	
Conjugal status	Wedded student(n=24)	8(5.2)	9(6.5)	7(5.3)	0.27	0.874	
Exercising practice	Three or more times a week (n=63)	26(16.8)	14(10.1)	23(17.6)	3.728	0.155	
Depression		Total = 155	Total = 161	Total = 109			
Students Age	> 22 years (n =238)	74(47.7)	94(58.4)	70(64.2)	7.651	0.022	
student's Socio-economic status	Poor & extremely poor (n =155)	58(37.4)	56(34.8)	41(37.6)	0.35	0.986	
Educational years	Third, fourth & master's years (n =316)	105(67.7)	121(75.2)	90(82.6)	7.465	0.024	
Body weight	Overweight and obese students (n =74)	25(16.1)	29(18.0)	20(18.3)	0.284	0.868	
Residence	Urban students (204)	77(49.7)	84(52.2)	43(39.4)	4.491	0.106	
Conjugal status	Wedded student(n=24)	7(4.5)	13(8.1)	4(3.7)	2.952	0.228	
Exercising practice	Three or more times a week (n= 63)	28(18.1)	18(11.2)	17(15.6)	3.034	0.219	

0.035). When it came to life satisfaction, 21.6 percent of those surveyed was identified as satisfied with their life and there's no substantial difference between gender. Males and females, who took part in the research had statistically significant differences in their judgments of BMI (p value = 0.000), with most of the male understudies (24.5%) announcing themselves having "overweight/obese" as well as most of the female understudies (11.2%) detailing themselves being "underweight". When it came to self-detailed blood pressure levels, it was tracked down that greater part of the understudies (91.1%) knew about their BP status. A huge contrast was found in oneself saw blood pressure levels of the males and females (p value = 0.000), and the proportion of students with low blood pressure and high blood pressure was 13.9% and 4.0%; females were found more with low BP (23.4%) than males (6.3%), and 7.2% males were found with high BP whereas no female was found with high BP.

Table 5 reveals that there is a significant relationship of student's anxiety with their age of 22 or more years (p-value = 0.000); They were found with students who had higher levels of anxiousness than usual. In the case of depression, a significant correlation has been found among age and the occurrence of depression (p-value = 0.022). Also, an important relationship between anxiety and depression with high study classes was found with p-value of 0.00001 and 0.024 respectively.

Factors Related to Mental Illness

Table: 6 displays the median and Interquartile Range (IQR) of

stress, anxiety, and depression scores based on factors of social and demographic, weight, and lifestyle;

Gender: With the p - value of 0.015 indicating that female students had a considerably higher median anxiety score than males, with no relationship of stress, depression, or gender.

Age: mature students aged 22 to 27 years had substantially higher anxiety and depression scores for median, with p- values of 0.000 and 0.006 respectively, with no association between stress and gender.

It has also been shown that there is an important relationship between BMI and stress scores, p value = 0.014, with higher values obtained between low weight than usual students. Likewise, no relationship was found between anxiety, depression as well as BMI.

There was a strong connection of SRBP with depression ratings: students with high BP had greater depression scores than normal students (p-value 0.054). Our findings revealed no relationship between stress, anxiety, & SRBP. A significant association between life satisfaction and depression is found in the table above, at the 0.05 level of significance. In this current study, we found a substantial negative association between life satisfaction and depression. But there is a negative but insignificant relation between life satisfaction and anxiety and stress level of university students though stress versus depression and Depression versus Anxiety observed a moderately positive relationship that is significant at 0.01 levels. Table 6: Factors that influence the occurrence of mental illness in students.

		Stress		Anxiety		Depression	
		Median & IQR	р	Median & IQR	р	Median & IQR	р
	Male	18(10:24)	0.252	8(4:16)	0.015	12(6:20)	0.257
Gender	Female	18(8:26)	0.252	12(6:20)	0.015	12(6.5:22)	
A	18-22	18(10:24)	0.265	8(4:14)	•	10(6:20)	
Age	>22	18(10:26)	0.365	12(6:20)	0	16(6:24)	0.006
	Very low & low	18(10:26)		10(4:18)	0.554	12(6:22)	
Socio-economic standard	Moderate	18(10:26)	0.978	10(6:18)		12(8:21)	0.855
	High	16(10:26)		10(4:18)		12(6:22)	
Marital status	Single	18(10:26)	0.00	10(4:18)	0.662	12(6:22)	0.939
	Married	13(8:21)	0.06	10(4:16)		15(5:20)	
	Underweight	22(16:28)		12(6:18)	0.324	16(12:22)	
BMI	Normal	16(8:24)	0.014	10(4:17)		12(6:20)	0.177
	Overweight & Obese	18(11.5:26)		12(4:20)		13(5.5:22)	
Exercise	No	18(10:26)	0.05	10(4:18)	0.882	12(8:22)	0.652
	Yes	16(10:26)	0.95	10(4:19)		12(6:20)	
Self-reported blood pressure	Low	20(10:26)		14(4:20)	0.114	14(8:22)	0.054
	Normal	18(10:24)	0.178	10(4:16)		12(6:20)	
	High	20(16:30)		14(7:20)		20(11:27)	
	Don't know	18(8:26)		10(4:14.5)		10(8:20.5)	

Table 7: Spearman's Correlation.

Spearman's rho	Stress	Anxiety	Depression	Life Satisfaction		
Stress	1.000	.510**	.639**	065		
Anxiety		1.000	.496**	062		
Depression			1.000	111*		
Life Satisfaction				1.000		

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

Discussion

Psychological health issues are viewed as an integrated wellbeing concern among university students besides they can also be a major source of psychological distress, raising the likelihood of suicide actions. The study revealed that female students are highly prevalent of melancholy, anxiousness, and stress than male students. Also, significant relationship has been found between both anxiety and depression with higher study classes and older aged students. Unmarried students had higher stress, anxiety, and depression levels than married students. Moreover, the outcomes of this study ought to be utilized with caution as the sample collected from just a single public university was not representative of all Bangladeshi university students

Conclusion

Our results suggest that MBSTU students are in danger of mental health issues (depression, anxiety and stress). Their levels of satisfaction with life are likewise quite low, and has a strong negative relationship with depression. The discoveries of this cross-sectional investigation may be valuable in helping educators and psychotherapists devise interventions to successfully tackle the issue of growing mental trauma among university students

Author Statements

Recommendation

Proper counselling by psychologists could help students to think positively about life. University should appoint at least one counsellor and one psychologist to help students to overcome challenges. Further studies should be run for detecting different causes and sources of psychological disorders more specifically related to academic and educational factors.

References

1. Alim SAHM, Kibria SME, Uddin MZ, Nessa M, Wahab MA. Translation of DASS 21 into Bangla and validation among medical students. Bangladesh Journal of Psychiatry. 2014; 28: 67–70.

- Chapell MS, Blanding ZB, Silverstein ME, Takahashi M, Newman B, Gubi A, et al. Test anxiety and academic performance in undergraduate and graduate students. Journal of educational Psychology. 2005; 97: 268.
- Cohen S, Kessler RC, Gordon LU, editors. Measuring stress: A guide for health and social scientists. Oxford University Press on Demand. 1997.
- Zwart PL, Jeronimus BF, Jonge P. Empirical evidence for definitions of episode, remission, recovery, relapse and recurrence in depression: a systematic review. Epidemiology and psychiatric sciences. 2019; 28: 544–62.
- Dessie Y, Ebrahim J, Awoke T. Mental distress among university students in Ethiopia: a cross sectional survey. Pan African Medical Journal. 2013; 15.
- 6. Diener ED, Emmons RA, Larsen RJ, Griffin S. The satisfaction with life scale. Journal of personality assessment. 1985; 49: 71–5.
- 7. Editorial. Students' mental health must be prioritized. New Age, Published: January. 2020; 07.
- Fahmy SI, El Sherbini AF. Determining Simple Parameters for Social Classification for Health Research. Bulletin of the High Institute of Public Health. 1983; 8: 95–107.
- Kumar H, Shaheen A, Rasool I, M. Psychological Distress and Life Satisfaction among University Students. J Psychol Clin Psychiatry. 2016; 5: 00283.
- 10. Lovibond SH, Lovibond PF, Australia PF. Manual for the depression anxiety stress scales. 2nd. Sydney, N.S.W: Psychology Foundation of Australia. 1995.
- Mamun MA, Hossain MS, Griffiths MD. Mental health problems and associated predictors among Bangladeshi students. International Journal of Mental Health and Addiction. 2022; 1–15.
- 12. Mamun MA, Rafi MA, Al Mamun AS, Hasan MZ, Akter K, Hsan K, et al. Prevalence and psychiatric risk factors of excessive internet use among northern Bangladeshi job-seeking graduate students: a pilot study. International Journal of Mental Health and Addiction. 2021; 19: 908–18.

- 13. Foundation MH. Fundamental Facts About Mental Health 2016. Mental Health Foundation. 2016.
- 14. Mental Health NI, Dhaka. National Mental Health Survey of Bangladesh 2018-19. 2018.
- Neuderth S, Jabs B, Schmidtke A. Strategies for reducing test anxiety and optimizing exam preparation in German university students: a prevention-oriented pilot project of the University of Würzburg. Journal of Neural Transmission. 2009; 116: 785–90.
- 16. Seligman M, Walker E, Rosenhan D. Abnormal psychology. Norton & Company Inc. 2001.
- 17. Smith K, Torres I. A world of depression. Nature. 2014; 515: 10–1038.
- Swami V, Chamorro-Premuzic T, Sinniah D, Maniam T, Kannan K, Stanistreet D, et al. General health mediates the relationship between loneliness, life satisfaction and depression: A study with Malaysian medical students. Social psychiatry and psychiatric epidemiology. 2007; 42: 161–6.
- 19. Tamini BK, Far MAM. Mental health and life satisfaction of Irani and Indian students. Journal of the Indian Academy of Applied Psychology. 2009; 35: 137–41.

- Wahed WYA, Hassan SK. Prevalence and associated factors of stress, anxiety and depression among medical Fayoum University students. Alexandria Journal of medicine. 2017; 53: 77–84.
- 21. WHO. Obesity and Overweight. In: Global Strategy on Diet, Physical Activity and Health. 2003.
- 22. WHO. Depression and Other Common Mental Disorders: Global Health Estimates. Geneva; 2017.
- 23. Organization WH. The World health report: 2001 [Internet]. 2001. Available from: https://apps.who.int/iris/handle/10665/42390
- 24. Organization WH. Investing in mental health. World Health Organization [Internet]. 2003. Available from: https://apps.who. int/iris/handle/10665/42823
- 25. Organization WH. Depression, World Health Organization [Internet]. 2020. Available from: https://www.who.int/news-room/ fact-sheets/detail/depression
- 26. Organization WH. Mental Health: Current mental health situation in Bangladesh [Internet]. 2020. Available from: http://www. searo.who.int/bangladesh/mental-health/en/