Mental Health Assessment of University Students in Bangladesh: A Cross-Sectional Study

*Md. Reza-A-Rabby
**Joyonto Dasgupto
***Nishat Salsabil
****Habibul Islam
*****Ashiqur Rahman

Abstract

With the rising prevalence and severity of mental health difficulties among university students around the world, as well as a scarcity of research on the mental health of Bangladeshi university students, this study provides an overview of the mental health situation among Bangladeshi university students. A cross-sectional study was performed among 282 Bangladeshi university students from July 29th to September 6th, 2021. Convenient sampling techniques for recruiting individuals have been utilized. Data was taken using an online survey that included the Bangla WHO-5 well-being index as well as demographic questions.The objective of this study was to examine the well-being (mental health) of students at universities in Bangladesh, based on various demographics, and also to discover if whether demographics and student wellbeing (mental health) were associated.In total, 75.2% of students of Bangladeshi universities reported poor mental health (WHO-5 scores $\geq$ 13).37.99 % of the mean wellness score (percentage) was reported by all respondents. Gender was significantly associated with wellbeing (mental health) ($\chi2$ (1, N=282) =6.173, p= .013) among Bangladeshi University students. The findings of the study indicate the poor mental health condition of Bangladeshi University students which may require sufficient attention from the pertinent authorities in order to deal with the crisis.

Keywords: Mental health, well-being, university student

Introduction

Mental health is a vital contributor to overall health which comprises intellectual, spiritual, and emotional well-being (Lei et al.,2021). Mental health is defined as a state of well-being in which each person understands his or her own prospects, is ready to deal with the pressures of life, is able to function efficiently and meaningfully, and is capable of contributing to their own community" (Almeida et al., 2001).Though, the idea of well-being has diverse meanings for different individuals, communities and cultures, making it more difficult to obtain a commonly agreed definition of well-being. Psychological well-being can thus be regarded as a spectrum in the social context of an individual (WHO, 2017). More than 30% of students from eight countries have witnessed mental illness(Auerbachet al., 2018). Mental illness is becoming more prevalent in society, particularly among university students (Pompeo-Fargnoli et al., 2020).The majority of psychiatric illnesses begin during the university period (Kessler et al., 2005). Bayram et al., (2008) have found that university students have higher rates of mental health issues than the general population. Mental illnesses have an impact on the academic and physiological well-being of students and can even lead to suicide (Strandheim et al., 2014). When making the transition from adolescence to maturity and consider leaving for university, individuals face greater challenges on their own. This shift is generally caused by an increase in despair,fear, and tension (Beiter et.al., 2015).

All the authors are MS Student, Department of Educational and Counselling Psychology,University of Dhaka,Bangladesh

College may be a stressful period for many students. Some students struggle with the tough duty of individuating from their family of origin while also dealing with scholastic pressure, and others may have a lot of employment and family responsibilities. Many college students in this position either have their first mental health or substance use concerns or have their symptoms worsen.

The psychological state of the university student involves a stable mood, coordinated interpersonal connections and psychological well-being according to the World Health Organization (Ottawa, 1986). Depression is the largest worldwide cause of disability. As the number of persons suffering from depression rises, so do the financial, cultural, and interpersonal difficulties that accompany it. Economic state, poverty, traumatizing life events, and chronic disease are all risk factors for depression in Low- and Middle-Income Countries (LMICs) like Bangladesh (Friedrich et al., 2017). The Bangla WHO-5 Well-being Index is one such well-qualified tool for assessing an individual's subjective well-being, as well as an instrument for detecting depression in an individual. It is therefore a fundamental task to determine how mental health problems may be dealt with appropriately. The outcomes of the study will help researchers better understand the mental health issues that Bangladeshi university students face, and recommendations can be made for designing appropriate psychological interventions that will help them improve their mental health.

Objectives

This research attempted to address the mental health of Bangladeshi university students. Our primary goals were twofold. The first was to investigate the well-being (mental health) of Bangladeshi university students and see how it was distributed across different demographic characteristics. The second goal was to examine if there was an association between these demographic factors and student wellbeing (mental health).

Methods

Study design and participants

The study was conducted using a cross-sectional research design (Wang et al., 2020). A convenience sampling technique was used to recruit participants. The eligibility or inclusion criteria for this study were being a student of 18 years or more, studying at the honours or master's level in a university, being able to speak Bengali, and residing in Bangladesh.

Procedure

Participants completed the survey between July 29th and September 6th, 2021. Because face-to-face interviews were not possible due to the continuous health hazard due to COVID situations, data was collected via social media with an online questionnaire comprising the Bangla WHO-5 well-being index and demographic variables. The online questionnaire URL was shared on numerous universities based social media platforms. It was entirely voluntary, and participants were free to leave the survey at any point without giving any reason. Prior to the start of the experiment, respondents gave their informed consent and completed a self-reporting questionnaire after going over the study's aims and purpose. The survey was completed by 287 people, and 282 of them were chosen for further analysis. Due to incomplete submission, 5 data points were discarded. The participants received no incentives, and their anonymity was maintained to ensure their confidentiality. This study was conducted online in accordance with the Helsinki Declaration's provisions for research involving human participants.

Measures

Socio-demographics

Close-ended questions about the respondent's gender, age, university, religion, educational achievement, marital status, smoking status, monthly family income, and current living situation were used to collect socio-demographic data.

Mental health

The Bangla language version of the WHO Five Well-Being Index (WHO-5) was applied of the university students of Bangladesh to assess their mental health. It was found with Cronbach's α score of 0.754(Faruk et al., 2021). TheWHO-5 has high psychometric qualities in a wide representative sample, and it is frequently used and recommended for depression screening in primary care settings. The WHO-5 is a set of five positively worded questionnaires that imply well-being rather than depressive symptoms. On a 6-point scale ranging from all of the time (0 points) to never (5 points), participants are asked to report the presence of these positive feelings in the previous two weeks (0 points). An overall score of less than 13 signals poor mental health and is a sign of depression(Henkel et al., 2003).

Statistical analysis

The respondents' characteristics were determined using descriptive analysis. The Chi-square test was used to investigate if there was an association between mental health measures and the participants' socio-demographic factors.Statistical significance was determined as a p-value of less than 0.05. The SPSS statistic version 20 (IBM SPSS Statistics, New York, USA) was used to carry out all statistical analyses.

Results

The demographic variables are listed in Table 1. A total of 282 participant responses were analyzed for the final study. The average age of those who responded was 22.49 years (SD: 2.36). Most of the respondents were female (54.3%), aged 18 to 23 years (69.1%), public university students (94%), Muslim (86.5%), studying at honourslevel (72.3%), unmarried (95.7%). The majority (89.4%) of respondents were non-smokers. Almost half (51.8%) of respondents' monthly family income was less than 25000 BD TK ($300 USD). Most of the respondents lived with their families (80.5%).

Table1		
Demographic properties of participants		
Variables	**Category**	**N=282 (%)**
Gender	Male	129 (45.7%)
	Female	153 (54.3%)
Age group	18-23	195 (69.1%)
	24-28	83 (29.4%)
	29 or more	4 (1.4%)
University	Public	265 (94%)
	Private	17 (6%)
Religion	Muslim	244 (86.5)
	Hindu	24 (8.5%)
	Christian	12 (4.3%)
	Buddhist	1 (.4%)
	Others	1 (.4%)
Educational status	Honours	204 (72.3%)
	Masters	78 (27.7%)
Marital status	Married	12 (4.3%)
	Unmarried	270 (95.7%)
Smoking status	Smoker	30 (10.6%)
	Non-smoker	252 (89.4%)
Monthly Family Income	>25000	146 (51.8%)
	25001-50000	94 (33.3%)
	50001-100000	30 (10.6%)
	100001+	12 (4.3%)
Living status	With family	227 (80.5%)
	In hostel	55 (19.5%)

The raw score of the Bangladesh WHO-5 well-being index, which ranged from 0 to 25, was computed by adding the points from the five answers (0: worst possible; 25: best possible quality of life). The mean raw score of our study was 9.50 (SD: 5.19) with a maximum score of 23, while the minimum score is 0. A raw score of less than 13 was linked to low mood and poor mental health and was thought to be an indication of depression.

From figure 1, it was seen that 212 (75.2%) participants had a raw score in the range of 0-13 which indicates poor mental health while 70 (24.8%) participants had more than the raw score of 13 which is the indication of sound mental health
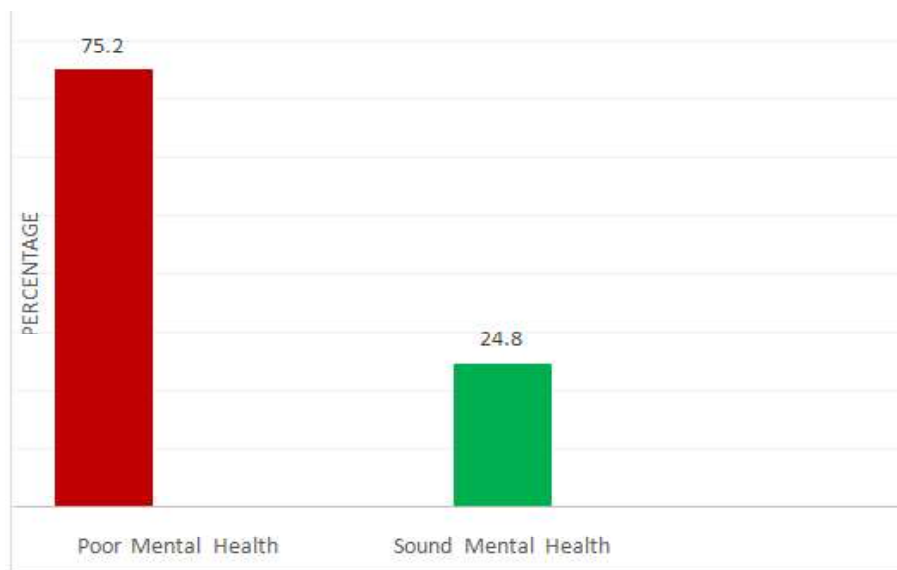
Figure1: The percentage of the different levels of mental health according to the WHO-5 well-being index among Bangladeshi University students

The raw score was multiplied by 4 to get a percentage score ranging from 0 to 100. A number of 0 indicates the worst possible quality of life, while a score of 100 indicates the best possible quality of life. The mean wellness score (percentage) for all respondents was 37.99%, with a maximum mean wellness score of 92, while the minimum mean wellness score is 0. The mean wellness score for males (41.27 %) was higher than for females (35.22%) (24-28) year-old people had a higher mean score (38.36%) as compared to (18–23) year-old people (38.11%) and (29 or more) year-old participants (24%). Public university students with children had a higher mean score (38.73%) than private university students (26.35%), while master's students had a higher mean score (39.54%) than honours students (37.9%). Muslim students had a higher mean score of 38.26%. Unmarried students had a higher mean score (38.15%) as compared to respondents who were married (34.33%). Non-smokers were found with a higher mean score (38.41%) than smokers (34.40%). Respondents whose monthly family income was between 50001 BD TK ($600 USD) and 100000 BD TK ($1200 USD) were found with higher mean scores (48.93%) than other ranges. Participants who lived in the hostel had a higher mean score (38.62%) as compared to respondents who lived with their families (37.83%). (Table 2).

Table2
Distribution of mean wellness score for all respondents according to different demographic parameters

Variable	Category	Mean	Range	
			Minimum	Maximum
Gender	Male	41.27	0	92
	Female	35.22	0	80
Age group	18-23	38.11	0	92
	24-28	38.36	0	80
	29 or more	24.00	0	48
University	Public	38.73	0	92
	Private	26.35	0	56
Religion	Muslim	38.26	0	92
	Christian	37.33	8	64
	Buddhist	32.00	32	32
	Others	24.00	24	20
Educational Status	Honours	37.39	0	92
	Masters	39.54	0	80
Marital Status	Married	34.33	0	84
	Unmarried	39.54	0	92
Smoking status	Smoker	34.40	0	80
	Non-smoker	38.41	0	92
Monthly Family Income	>25000	36.49	0	92
	25001-50000	37.53	0	80
	50001-100000	48.93	0	84
	100001+	32.33	0	60
Living Status	With family	37.83	0	92
	In hostel	38.62	0	80

A chi-square test for independence with an alpha level of .05 was used to assess whether demographic variables were related to mental health. Gender and mental health were found to have a significant relationship (χ^2 1, N = 282) =6.173, p =.013) among Bangladeshi University students.
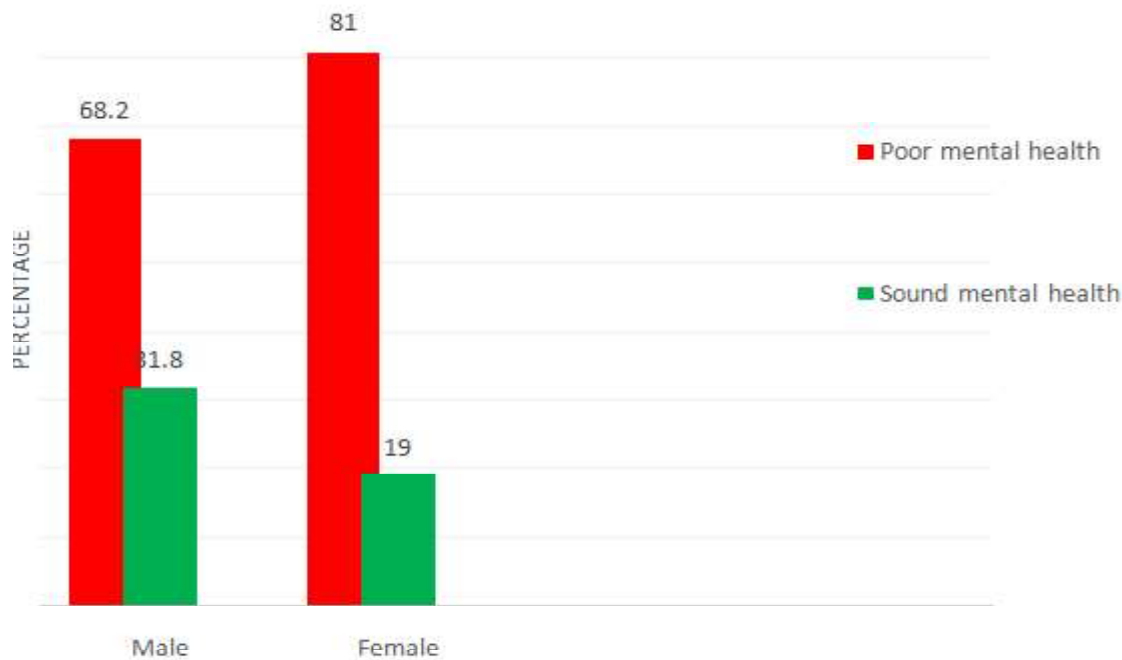
Figure 2: The percentage of the different levels of mental health among male & female participants according to theBangla WHO-5 well-being index

As seen in figure 2, females (81%) are more likely to have poor mental health than males (68.2%). No significant association was found between other demographic variables and mental health.

Discussion

While attending university is a dream come true, it is only the beginning of a long journey in the life of a university student. The tensions that continue to add to the difficulties of achieving these goals multiply with each step in the right direction. The joy of triumph is frequently heightened by the addition of a slew of other circumstances, including economic, social, and personal aspects, all of which have a big impact on one's well-being.

When we began this study, our line of thinking was that university students may experience a lot of tension during their academic life due to several factors. We intended to study Bangladeshi university students' well-being (mental health) and discover how it varied by demographic characteristics (gender, age, university type, religion, educational status, marital status, smoking status, monthly family income, and living status). The second objective was to identify certain demographic parameters that have an association with their state of well-being (mental health).

The Bangla WHO-5 Well-Being Index (Faruk et al., 2021) was chosen as a tool to examine this population because it is simple and easy to complete, and it provides valuable insight without overburdening study participants in terms of negative symptomatology inquiries. A systematic review (Topp et al., 2015) has used the WHO-5 Well-Being Index to examine a broad range of factors.

It is only concerned with the previous two weeks. Participants gave their informed consent to participate in the study, and their confidentiality was ensured by the researchers. A total of 287 students took part in the survey, which lasted over 1.5 months. Finally, 282 participants were finally included in the final statistical analyses. They had a mean raw well-being score of 9.50 (SD: 5.19) and a maximum score of 23, with a minimum score of 0.75. Raw wellbeing scores of less than 13 were discovered in 75.2% of participants, suggesting poor mental health, while raw wellness scores of 13 or more were identified in 24.8% of participants, indicating improved mental health. The raw

score was multiplied by 4 to get a percentage wellness score ranging from 0 to 100. All respondents had a mean wellbeing score (percentage) of 37.99 %, with a maximum mean wellness score (percentage) of 92 and a minimum mean wellness score (percentage) of 0. Gender and mental health were shown to have a significant relationship among Bangladeshi University students. Females (81%) were more likely than males (68.2%) to have poor mental health, while males (31.8%) were more likely to have better mental health than females (19%). Males had a higher mean wellness score (41.27 %) than females (35.22 %). Other demographic variables (age, university type, religion, educational status, married status, smoking status, monthly family income, and living status) had no significant relationship with the mental health of Bangladeshi university students.

We aimed at identifying and studying significant points in time from this study, which will lead to the formulation of initiatives to promote the well-being of Bangladeshi university students. Modifications to improve the well-being of Bangladeshi university students are highly recommendable with focused interventions and may be the beginning point for a reduced incidence of poor mental health state. Due to the scarcity of time, the study was conducted on a pilot basis with 282 people. However, the study may be expanded to include additional people. More in-depth research is recommended for further investigation. The prevalence and range of mental health issues that are prevalent among college students, as well as the particular requirements of traditional and non-traditional college students, must be fully understood by mental health providers.

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