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The Impact of Sociodemographic and Lifestyle Factors on Mental Health and Academic Performance Among University Students in Bangladesh

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Abstract

The mental health issues in university students are a multifaceted and expanding problem particularly in Bangladesh where different socio-economic and lifestyle determinants influence the psychological health and academic performance significantly. The proposed mixed-method research will uncover the effect of sociodemographic and lifestyle variables on mental health and academic achievement among university students. The research was done among 150 students of Jatiya Kabi Kazi Nazrul Islam University, Mymensingh, Bangladesh. The GHQ-12, which refers to the General Health Questionnaire by Goldberg has also been used in the study to explore in depth the mental health issues. The study found that female students expressed a considerably higher rate of depression (74%) and anxiety (80%). Financial insecurity emerged as a significant stressor, with 80.6% of students from low-income families (< 10,000 BDT monthly parental income) experiencing anxiety. Excessive use of social media was strongly associated with depression (81%) and anxiety (81%). In addition, family support and bonding were also considered as protection factors that lowered the depression (41.5%), frustration (39.6%), and anxiety (35.8) rates and raised the resilience among students. Mental health adversely influenced academic performance, with 77.9% of unmarried students and 79.6% of undergraduates claiming the presence of decreased focus and motivation that could be attributed to having psychological challenges. The recommendations that are presented in this study include counseling to the students, financial assistance programs and the encouragement of a balanced lifestyle to ensure the wellbeing and success in academic performance.

INTRODUCTION

The issue of mental health has emerged as a significant health concern in most countries of the world particularly among the university students, who are being cited as the high-risk groups. The World Health Organization (WHO) assumes that an estimated 970 million individuals across the globe have a mental disorder, and young adults are more disproportionately impacted by mental health disorders (WHO, 2022). Mental health issues destroy not only the quality of life but also deny academic achievement and social interactions. There is an overall change of mental health issues among students in the university. As an example, a study carried out in Europe revealed that approximately 39 percent of higher education students have anxiety symptoms and 30 percent of students had depression (Liyanage et al., 2021). These issues can be further complicated by cultural and systematic barriers in Asia; students do not want to get assistance due to the stigma of having mental health issues (Dessauvagie et al., 2022). In a study, depression and anxiety were found to be affecting over half of university students in Bangladesh (Hossain et al., 2022). Female learners belonging to low-income families are particularly becoming the victims of certain mental illnesses (Ovi et al., 2024; Hossain et al., 2019). In addition, 30.3 percent of the students feel out of place when speaking about financial self-sufficiency and seeking social support (Begum and Muniruzzaman, 2024). Other factors that influence mental health outcomes among adolescents and young adults in Bangladesh are social norms and information-seeking behaviors that relate to health (Haque et al., 2024). The analysis of the participants of the university entrance examination in Bangladesh showed that there were serious mental health issues and discrimination based on geography (Al-Mamun et al., 2024).

The lifestyle factors, i.e., excessive screen time, poor sleeping habits, and physical inactivity, also make mental health issues worse. Prolonged exposure to digital devices worldwide is associated with an extended level of loneliness and depression (Keles et al., 2020). Excessive online activities are associated with higher levels of depression and anxiety (Hosen et al, 2021). In Bangladesh, students who spend extra time on social media are more likely to report anxiety and dissatisfaction with academic performance (Huda et al, 2021). Furthermore, irregular sleeping patterns, types, and inadequate diet contribute to the reduction of overall mental health (Islam et al., 2020; Calcaterra et al, 2023; Aslan & Polat, 2024; Rahimi et al, 2024; Kosendiak et al, 2024).

Moreover, mental health has also been affected by sociocultural environment and lifestyle preferences, factors such as stress when studying, family pressures, and lifestyle will lead to the high prevalence of mental health issues among university students in Bangladesh (Hossain et al, 2019). A national Finnish survey found the increasing propensity of

psychological distress in students between 22 per cent in 2000, 26 per cent in 2004 and 28 per cent in 2012 (Oksanen et al, 2017). Collectivist societies, being as opposite to individualistic societies and enjoying individual freedom, hold the family and community as being responsible (Akhter and Sumi, 2014; Devine et al, 2008). Such cultural heritage frequently increases the levels of incompetence and pressure in students, particularly those who have to balance between school and family matters (Sen et al., 2023). This study was conducted with some objectives as follows:

The primary objective of this study is to explore the impact of socio-economic and living causes on the mental health and academic performance of the universities of Bangladesh. Moreover, the secondary objectives of the study are to examine the interconnection of these selected variables, also to reveal the major stress and protective factors, and as well as to provide effective insights to inform principles and intervention programs.

LITERATURE REVIEW

Mental health issues are an increasing topic in the global community, particularly in the university population, which is subject to a variety of stressors that influence mental health and academic success. There are common mental disorders that include depression, anxiety, frustration, and stress among the university students. The world health organization (WHO) states that approximately 1 out of 8 individuals reside with mental conditions, with young adults being disproportionately impacted by mental health illnesses, where the thoughts, sensitive control, or action appears greatly disturbing (World Health Organization, 2022). A study by Hossain et al (2019) found that students who spend long hours on screens without breaks are more likely to report negative mental health outcomes. Another study found that about 62.8% of female students in Bangladesh exhibit poor mental health, significantly higher than their male peers, 52.6% (Ovi et al., 2024).

According to the Healthy Minds study, surveyed graduates have experienced 38% of moderate or serious depression experiences (Alonso, 2024). In 2023, more than three-quarters of students (76%) gained moderate to serious psychological distress, 36% of students were diagnosed with anxiety, as well as 28 % had depression. More than 9 out of 10 students (99%) who face academic challenges say they influence their mental health (American College Health Association, 2018). Recent discoveries also show that the mental health trends in students of higher education are evolving, and some progress has been noted in the overall well-being (Alonso, 2024).

According to the Royal College of Psychiatrists (2011), 17.3% of students have screened positive for mental health problems and 9.8% anxiety disorders, with 58% of the depressed students having some impact of their symptoms on social functioning. The access to healthcare and social or cultural stigma tend to worsen mental health disorders in the southern countries. In ASEAN countries, Dessauvagie et al. (2022) established depression (29.4%), anxiety (42.4%), and stress (16.4%) in university students. The society has high expectations and stigma which is why female students normally indicate high rates of stress, anxiety and depression (Bilgel & Bayram, 2010). On the one hand, financial insecurity increases stress, anxiety, and depression not only in terms of students in low-income families but also is a contributing factor to them (Frankham et al., 2020; Coakley et al, 2022). Shafiq et al. (2021) noted that in Bangladesh, financial struggle is among the primary reasons student feel mentally distressed in university.

Moreover, the studies also show that married students tend to have high anxiety because of academic and family issues (Simon, 2002; Williams et al., 2023). Research indicates that continued online interactions elevate the sense of incompetence and loneliness (Keles et al., 2020). Ahmed et al. (2022) have indicated that Bangladeshi students who spend over five hours on social media per day, are at a risk of concern. Islam et al. (2021) discovered that the likelihood of developing the symptoms of depression is highly increased among Bangladeshi students due to irregular sleep patterns. In a Study, Pascoe et al. (2020) have reported a close connection between high academic expectations and mental health issues across most of the world. In Bangladesh, competitive job markets and academic systems enhance these stresses, which leads to stress (Chowdhury et al, 2022). Also, institutional and structural processes in the system of higher education can affect the academic stress levels and mental health of the students (Rahman et al., 2024).

According to a study conducted by O'Donnell et al. (2023), social connection and outgoing involvement are important to buffer the negative economic and academic stressors. Equally, other researchers in Bangladesh also stated that elasticity or resilience has been observed to be better in students who engage in regular social or creative practice (Mamun et al, 2022; Piya et al, 2022; Tohan et al., 2024). Research also shows that female students tend to complain more of anxiety and frustration than their male peers (Hoteit et al., 2024). Older students are more likely to report a significant mental health problem (Shek et al, 2023; Chai & Shek, 2024). Students who sleep less than seven hours every night are at high risk of developing this situation (Hoteit et al, 2024). Students of the collective culture may feel different stresses compared to the individualist background (Sevilla et al, 2024). Studies found that students who maintained active lifestyles reported the results of better mental health than those who were sitting (Andraus et al, 2023; Roldán-Espínola et al, 2024). Strongly socially connected students report better mental health results (Roldán-Espínola et al, 2024). Mental health problems can reduce participation in class activities and reduce inspiration to complete assignments, in the end affecting grades and overall performance (Zila-Velasque et al., 2023). Anxiety, depression, and frustration can be challenging to remain steadfast through their study, which increases the rate of emotional damage (Sevilla et al., 2024). Students who feel these symptoms often say it is difficult to maintain focus during the time of speech or while studying (Zila-Velasque et al, 2023; Sevilla et al, 2024). Over time, the prevalence of temporary depression has increased by 22.5% and the prevalence of anxiety has increased by 27.1%. In terms of democratic factors, the study revealed that unpleasant students in the university culture are more likely to experience hopelessness and depression (Hossain et al, 2019).

A significant research gap has been identified in the literature on mental health among universities in Bangladesh, especially related to the intersection of socio-economic and lifestyle factors that affect mental health and academic performance. In the unique context of university campuses in Bangladesh, there is a lack of extensive research to address these factors. Moreover, no such study has been done in Jatiya Kabi Kazi Nazrul Islam University (JKKNIU) and the Mymensingh Division of Bangladesh. Thus, this research is very relevant to these important health problems and is also important to overcome challenges like psychological crises and mental health problems for the formation of a sustainable future nation with the progress and development of university students.

METHODS AND MATERIALS

The study is designed as a mixed method, which includes both qualitative and quantitative data. The study was conducted at Jatiya Kabi Kazi Nazrul Islam University (JKKNIU) in Mymensingh, Bangladesh. Participants were university students who were admitted to various faculties and programs. The sample size consisted of 150 students, which included 100 male and 50 female students. A convenient sampling technique was used to select the participants for the study. Five (05) case studies were conducted to collect qualitative data on students facing mental health challenges. Besides, in-depth interviews were conducted using a semi-structured format. Quantitative data were collected through a survey that utilized a semi-structured questionnaire. Goldberg's General Health Questionnaire (GHQ-12) was applied for further exploration of mental health issues (Goldberg & Williams, 2000; Montazeri et al, 2003). The collected data were analyzed and graphically represented using SPSS (version 25) software and MS Excel software. Descriptive statistics analysis and thematic analysis were employed to interpret and analyze the data of the study. This research was conducted in accordance with the Declaration of Helsinki. Ethical approval was obtained from the Department of Sociology, Jatiya Kabi Kazi Nazrul Islam University. All participants provided informed consent before participating in the study. Participants were notified of the purpose and nature of the study, and their informed consent was taken before collecting any information. The participants were assured of their identity privacy, and their personal information was kept confidential and protected. Moreover, this is a field research-based study, and it is conducted under the permission and supervision of the head of the department of Sociology, Jatiya Kabi Kazi Nazrul Islam University (JKKNIU), Bangladesh.

RESULTS AND DISCUSSION

The study explores the interplay between these variables, and related data on mental health is also revealed for a wide understanding of the challenges faced by 150 selected university students.Findings are presented across four analytical domains: sociodemographic profile, sociodemographic correlates of mental health, lifestyle and behavioural correlates of mental health, and GHQ-12 psychological screening results.

Sociodemographic Characteristics

Table 1: Socio-demographic Characteristics of the Respondents

Characteristics	Categories	Percentage (%)
Sex	Male	66.7
	Female	33.3
Education Qualifications	Under-graduate	75.3
	Graduate	24.7
Religious status	Islam	86.0
	Hinduism	8.7
	Others	5.3
Marital status	Married	12.7
	Unmarried	87.3
Place of residence	Non-residential	38.7
	Residential	61.3
Family type	Joint family	29.3
	Nuclear family	70.7
Family status	High Class	5.3
	Middle class	72.7
	Lower-middle class	16.7
	Lower class	5.3
Parental income	Less than 10000	20.7
	10000-20000	23.3
	20000-30000	24.0
	30000-40000	14.7
	More than 40000	17.3

The socio-demographic features presented in Table 1 reveal a diverse participant profile. Most of the respondents are male (66.7%) and unmarried (87.3%), a demographic that often benefits from fewer family responsibilities, but there may be a lack of spouse or familial mental or emotional support. Most students were undergraduates (75.3%), which indicates that young students dominated the study, a group that was often at risk of stress due to academic and life-changing transitions. Most students from the Nuclear Family (70.7%) suggest limited family assistance and support, which can intensify the feeling of isolation during stress and pressure. The socio-economic factors are central, of which 72.7% are identified as the middle class. Although middle-class students can avoid the extreme limit of economic hardship, financial pressure remains

significant, which is reflected in the distribution of parents' income; about half the monthly income is less than 30,000 BDT. Further, most students resided on campus (61.3%), which indicates dependence on the university hall, which can affect both their social interaction and freedom.

Mental Health Causes and Case Studies

Moreover, university students often face various mental health challenges due to several causes, which are related directly or indirectly to their personal and academic lives. This study identified these types of major causes of mental health challenges among the respondents. Figure 1 clearly illustrates the multifaceted nature of the mental health challenges facing university students, with economic stressors or challenges emerging as the most significant contributors (26%), which indicates that financial instability often increases the struggle for mental health.

Beyond economic concerns, academic pressure (14%) and family-related issues (14.7%) are identified as the main stressors, which reflects the dual stress or pressure of conventional academic success and familial expectations in collectivist societies. Cultural and societal expectations (14%) highlight the extensive impact of the community rules and norms, especially for students to maintain family respect and to meet social criteria or standards. Career uncertainty (7.3%) and a lower percentage of residential challenges (4.7%) suggest that these are secondary problems. Zara, a 22-year-old student who shares his fight with depression because of academic uncertainty and life stress or pressure:

"I am trapped in this overwhelming depression and hopelessness. Ever since uncertainty has consumed me, I have been struggling to find guidance. My studies seem meaningless, and I don't seem to be concentrated or inspired. The sparking that was driven to me was completely burned, so I was looking for a feeling of purpose."

Her experience reflects the broader findings, where over 64% of students reported feelings of unhappiness and depression. Similarly, Nashida, a 23-year-old student, highlights the emotional toll of the ongoing economic crisis:

"The economic crisis has completely turned my life. I've lost my social connection, concentration, and enjoyment of coming with my friends. Each day looks like a repetitive cycle of sorrow and isolation, which has no end. It is difficult to find the inspiration for the smallest thing when the financial battle is constantly pressing on me."

Sociodemographic Correlates of Mental Health and Academic Impact

This relates to the findings of this study (in Table 2) that financial stress and pressure exacerbate psychological distress, with 80.6% of students from low-income families reporting anxiety.1

Table 2: Sociodemographic Factors with Mental Health Issues and Academic Impact

Factor	Categories	Depression (No/Yes)	Frustration (No/Yes)	Stress (No/Yes)	Anxiety (No/Yes)	Academic Impact (No/Yes)
Sex	Female	26/74	14/86	22/78	20/80	24/76
	Male	52/48	31/69	29/71	35/65	25/75
Religion	Islam	48.1/51.9	27.9/72.1	26.4/73.6	33.3/66.7	24/76
	Hinduism	23.1/76.9	15.4/84.6	30.8/69.2	15.4/84.6	38.5/61.5
	Others	37.5/62.5	25/75	37.5/62.5	25/75	12.5/87.5
Marital Status	Married	15.8/84.2	10.5/89.5	21.1/78.9	15.8/84.2	42.1/57.9
	Unmarried	47.3/52.7	27.5/72.5	27.5/72.5	32.1/67.9	22.1/77.9
Academic Year	Under-graduate	38.9/61.1	25.7/74.3	26.5/73.5	30.1/69.9	20.4/79.6
	Graduate	48.6/51.4	21.6/78.4	29.7/70.3	24.3/75.7	32.4/67.6
Place of Residence	Non-residential	42.1/57.9	19.3/80.7	29.8/70.2	24.6/75.4	22.8/77.2
	Residential	44.1/55.9	29/71	24.7/75.3	33.3/66.7	26.9/73.1
Family Type	Joint Family	50/50	15.9/84.1	27.3/72.7	15.9/84.1	29.5/70.5
	Nuclear Family	40.6/59.4	29.2/70.8	26.4/73.6	35.8/64.2	22.6/77.4
Family Status	Lower Class	12.5/87.5	25/75	12.5/87.5	25/75	25/75
	Lower-middle Class	35.8/64.2	15.6/84.4	31.2/68.8	19.3/80.7	27.5/72.5
	Middle Class	48/52	28/72	28/72	36/64	24/76
	High Class	37.5/62.5	25/75	12.5/87.5	12.5/87.5	25/75
Parental Income (BDT)	Below<10000	45.2/54.8	6.5/93.5	25.8/74.2	19.4/80.6	16.1/83.9
	10000-20000	40/60	25.7/74.3	20/80	25.7/74.3	20/80
	20000-30000	30.6/69.4	27.8/72.2	22.2/77.8	33.3/66.7	27.8/72.2
	30000-40000	50/50	36.4/63.6	45.5/54.5	31.8/68.2	22.7/77.3
	Above>40000	57.7/42.3	34.6/65.4	26.9/73.1	42.3/57.7	38.5/61.5

Table 2 highlights that female students have revealed disproportionately higher rates of mental health problems, such as depression (74%), frustration (86%), and anxiety (80%) compared to male students. These findings relate to the existing literature that blames this national discrimination for the potential limitations of social pressure, gender rules, and access to assistance systems. Unmarried participants of this study faced more anxiety (67.9%) and academic impact (77.9%) compared to the married participants, as well as married respondents also experienced high frustration (89.5%). Undergraduate students are more affected by frustration (74.3%), anxiety (69.9%), and stress (73.5%) than graduate students, which deeply suggests that earlier students of academic years have greater adjustment challenges and difficulties. Additionally, non-residential students of this study reported higher levels of frustration (80.7%) than those who are living on campus or hall (71%), and reported pivotal academic impacts (77.2%), probably due to logistical challenges, commuting pressures, and fewer opportunities for peer support. Economic factors have also played an important role in low-income families (<10,000 BDT); respondents from this level of families have experienced the highest level of anxiety

(80.6%) and frustration (93.5%). Furthermore, nuclear-family students show a higher level of stress (73.6%) and depression (59.4%) than the joint family, which indicates the possible protective effects of enhanced family networks. By contrast, those from families earning >40,000 BDT showed the highest rates of depression (57.7%), which reflects the complex interaction between financial security and mental health.

Lifestyle and Behavioural Correlates of Mental Health

Table 3: Lifestyle and Behavioral Factors with Mental Health Issues and Academic Impact

Factor	Categories	Depression (No/Yes)	Frustration (No/Yes)	Stress (No/Yes)	Anxiety (No/Yes)	Academic Impact (No/Yes)
Relationship with Family	Bad	9.1/90.9	15.9/84.1	25/75	6.8/93.2	25/75
	Good	24.1/75.9	20.7/79.3	24.1/75.9	24.1/75.9	24.1/75.9
	Very Bad	16.7/83.3	4.2/95.8	37.5/62.5	16.7/83.3	16.7/83.3
	Very Good	58.5/41.5	60.4/39.6	22.6/77.4	64.2/35.8	24.5/75.5
Financial Sources	Small Businesses/Part-time jobs	50/50	33.3/66.7	16.7/83.3	33.3/66.7	13.3/86.7
	Entrepreneurship/Photography or other related works	28.6/71.4	28.6/71.4	42.9/57.1	28.6/71.4	28.6/71.4
	Tuition	41.7/58.3	23.6/76.4	20.8/79.2	29.2/70.8	19.4/80.6
	Others	44.4/55.6	25.9/74.1	29.6/70.4	29.6/70.4	33.3/66.7
Supporting Family	No	41/59	24.8/75.2	24.8/75.2	28.6/71.4	21.9/78.1
	Yes	48.9/51.1	26.7/73.3	31.1/68.9	33.3/66.7	31.1/68.9
Communication with Family	No	40/60	25/75	30/70	31.7/68.3	31.7/68.3
	Yes	45.6/54.4	25.6/74.4	24.4/75.6	28.9/71.1	20/80
Communication with Friends	No	27.3/72.7	23.6/76.4	23.2/76.8	29.1/70.9	23.6/76.4
	Yes	51.6/48.4	25.3/74.7	27.4/72.6	52.6/47.4	25.3/74.7
Organization Involvement	No	50/50	25/75	24.4/75.6	37.8/62.2	22.2/77.8
	Yes	36.7/63.3	24.4/75.6	30/70	23.3/76.7	26.7/73.3
Family Career Stress	No	66.7/33.3	37.3/62.7	25.3/74.7	45.3/54.7	24/76
	Yes	32/68	18.7/81.3	28/72	22.7/77.3	28/72
Religious Activities	Regular	64.4/35.6	37.8/62.2	28.9/71.1	57.8/42.2	31.1/68.9
	Irregular	29.1/70.9	16.5/83.6	27.3/72.7	25.5/74.5	21.8/78.2
	Occasionally	8.6/91.4	14.3/85.7	22.9/77.1	8.6/91.4	22.9/77.1
	Never	13.3/86.7	6.7/93.3	33.3/66.7	6.7/93.3	13.3/86.7
Relationship Status	No	53/47	33/67	27/73	37/63	25/75
	Yes	24/76	12/88	26/74	16/84	28/72
Social Media Usage	Low	63.6/36.4	60.6/39.4	33.3/66.7	54.5/45.5	21.2/78.8
	Medium	50.7/49.3	26.7/73.3	25.3/74.7	28/72	21.3/78.7
	Excess	19/81	7.1/92.9	26.2/73.8	19/81	33.3/66.7
Daily Social Media Hours	Less than 2 hours	52.2/46.8	36.2/63.8	29.8/70.2	40.4/59.6	21.3/78.7
	3 to 5 hours	36.7/63.3	16.7/83.3	25/75	20/80	26/74
	More than 5 hours	34.9/65.1	14/86	20.9/79.1	23.3/76.7	30.2/69.8

Table 3 reveals that poor relationships with families were strongly associated with mental health problems. Students have talked about bad or very bad family bonds that feel extremely high levels of anxiety (93.2%) and depression (90.9%). On the contrary, those who have a very good family relationship have shown significantly lower rates of depression (41.5%) and anxiety (35.8%). Financial sources also played an important role, depending on the tuition-based income, reporting high-level anxiety (70.4%) and frustration (74.1%). In addition, entrepreneurs or creative-related work showed some better outcomes and felt low-level pressure (57.1%). Financial responsibility has made mental health challenges more complicated, as students supporting their families have shown anxiety (71.4%) and despair (75.2%) at high rates compared to their peers.

Moreover,Financial responsibility for family members further complicated mental health, with students providing financial support to their families demonstrating elevated anxiety (66.7%) and frustration (73.3%) compared to peers without such obligations. Regular communication with family and friends has emerged as a key protective factor. Similarly, participation in organizational activities provided the process of addressing the students, which contributed to slightly lower rates of stress (70%) and anxiety (76.7%).

In addition, family-imposed career stress has affected mental health outcomes significantly, and affected students have shown high-level frustration (81.3%) and anxiety (77.3%). Regular religious engagement was associated with lower anxiety (42.2%) and depression (35.6%), while irregular or any religious activity was related to an increase in mental health challenges. Additional use (more than five hours a day) is firmly related to depression (81%), frustration (92.9%), and anxiety (81%), where moderate or less use was associated with better mental health results. Students who have limited social media use less than two hours daily have lower levels of frustration (63.8%) and anxiety (59.6%). Rafı, a 21-year-old student, describes how relationship challenges have affected her emotional state and social life:

“I was a lively one with full of joy, always smiling and connected to the others. But now it seems that my love life has overshadowed everything else. I moved away from my family and friends, and the emotional toll of this relationship made me feel tired, feeling with anxiety, and frustrated. It is difficult to recognize yourself in the mirror anymore.”

It is well-matched with the results of the study that students suffering from relationship-related pressure have reported a high level of frustration (74.3%) and anxiety (71.4%). Similarly, the impact of mental health issues on academic performance is clear in another case. Ali, a 26-year-old student who fights to balance his mental health with his academic demands:

"After hitting what felt like rock bottom, I decided to seek help. Practicing mindfulness and opening up to a therapist was incredibly challenging, but it also gave me hope. I am learning to manage my emotions slowly and find the balance. This is a long way, but finally, I am willing to walk."

It reflects the survey result, where more than 50% of respondents say it is difficult to concentrate on academic tasks driven to their mental health challenges.

GHQ-12 Psychological Screening Results

This study also aims to explore the deeper exploration of mental health challenges; for this, the study uses the GHQ-12 scale, which helps to identify barriers related to mental health. The General Health Questionnaire (GHQ-12) findings provide a wider understanding of the psychological challenges faced by the respondents (Goldberg & Williams, 2000; Montazeri et al, 2003). A proportion of students reported difficulties in concentrating on tasks; however, responses categorized as “No more than usual” were treated as neutral and were not interpreted as indicators of psychological distress.

Table 4: Distribution of General Health Response Among the Respondents

GHQ-12 Item	Not at All (%)	No More Than Usual (%)	Rather More Than Usual (%)	Much More Than Usual (%)
1. Able to concentrate on tasks	36.7	30.0	20.0	13.3
2. Lost sleep over worry	16.0	24.0	34.0	26.0
3. Felt playing a useful role	33.3	28.0	25.3	13.3
4. Capable of making decisions	43.3	26.7	20.0	10.0
5. Felt constantly under strain	12.0	18.0	40.0	30.0
6. Could not overcome difficulties	18.7	29.3	36.7	15.3
7. Able to enjoy day-to-day activities	46.7	26.7	16.7	10.0
8. Facing unhappiness and depression	12.7	22.7	40.0	24.7
9. Losing self-confidence	18.0	28.7	32.0	21.3
10. Feeling worthless	14.7	32.7	32.0	20.7
11. Feeling reasonably happy	38.0	28.7	21.3	12.0
12. Felt less able to face problems	18.0	28.0	32.0	22.0

The GHQ-12 findings provide a systematic assessment of psychological difficulties experienced by the study sample (Goldberg & Williams, 2000; Montazeri et al., 2003). Concentration difficulties were pervasive: applying reversed scoring for this positively worded item, 66.7% of respondents reported no improvement in their usual ability to concentrate—with 36.7% reporting a complete inability to focus on tasks. Sleep disturbances attributable to worry were reported by 60.0% of respondents (those endorsing "Rather More" or "Much More Than Usual"), reflecting the pervasive impact of financial, academic, and social stressors on basic physiological functioning. Feelings of unhappiness and depression affected 64.7% of respondents, while feelings of worthlessness were endorsed by 52.7%. Decision-making difficulties were also prominent: 54.0% of students reported feeling less capable of making decisions than usual (endorsing "Rather More" or "Much More Than Usual" strain, and consistent with reduced functioning scores on this item). Additionally, 70.0% of respondents reported feeling constantly under strain, and 52.0% reported difficulty overcoming everyday challenges. Using reversed scoring for the positively worded item on enjoyment, 73.4% of respondents showed no enhancement in their ability to enjoy day-to-day activities relative to their baseline level, with 46.7% reporting a complete inability to enjoy usual activities.

Despite these challenges, some students demonstrated active coping strategies. Sarah, a 22-year-old female student, shared her approach:

“I started practicing mindfulness and talking to a therapist regularly. It's not easy, but it is helping me to pass this difficult time. Everything around me now looks different, so that nothing else will come back as before. My mental health has done so much damage to my studies and my daily life. However, despite the struggle, I am determined to look for ways to deal with and to rediscover my own feelings. I want to find the power to move forward, even if it is a small step at once.”

Further, the inability to enjoy daily activities reported by 65% of participants highlights the wide nature of the mental crisis. This finding is especially worrying because it reflects how the challenges of mental health disrupt not only academic performance but also the satisfaction of overall life.

Limitations

There are a number of weaknesses to the findings of this study. To begin with, convenience sampling limits the applicability of the findings to other institutions other than the study. The sample was confined to only Jatiya Kabi Kazi Nazrul Islam University (JKKNIU); hence, it should be observed that the sample may not be suitable to extrapolate to all students of the Bangladesh universities or any other cultural or institutional setting. Second, the sample was purposely skewed in regard to gender (100 male, 50 female) as it is in reality in the institution. Although a major result of concern was gender difference, the unequal ratio implies that the estimates of female students are made with a smaller sub-sample (n = 50) and should be viewed with a necessary reservation. Third, the study design is not causal because the results of the cross-sectional study do not provide direction or precedence in time regarding the association observed between sociodemographic or lifestyle factors on mental health outcomes. Fourth, all mental health and lifestyle data were self-reported and thus the potential of social desirability bias and recall error exists especially on sensitive issues like financial strife or conflict in the family. Fifth, the overall sample size of 150 subjects does not ensure statistical power to perform sub-group analysis (e.g., by religion, income levels), and results in smaller sub-groups can be viewed as preliminary and hypothesis-generating. The use of larger and probability based samples in multiple institutions in the future would contribute to evidence base.

CONCLUSION

This study reveals the profound impact of socio-economic and lifestyle reasons on the mental health and academic performance of university students in Bangladesh. Female students expressed high levels of frustration and concern, mainly responsible to social stress and cultural expectations, when graduate students and non-resident students faced more stress. Another key determinant to mental health was lifestyle factors, which comprised excessive use of social media and poor sleep habits. Proactive students, active in close family support and active in activities demonstrate the improved mental health outcomes, and the protective quality of the supportive relationships and balanced life. This paper underscores the importance of extensive approaches to overcome such problems through financial, psychological, and academic support or aid in the college education system. Nonetheless, according to the results, it has been recommended that the following measures could be implemented to minimize the difficulties of mental health and enhance the academic achievements of university students:

Strengthen Mental Health Services

Universities can set up easily accessible counseling and mental health awareness as a strategy to mitigate the issue of stigma and make the students seek help.

Gender-Sensitive Interventions

These are certain programs targeting the particular issues of female students such as mentorship and stress management workshops that are vital in providing an equal learning environment.

Promote Balanced Lifestyles

The program of promotion of healthy digital habits, physical activity, and participation in the extracurricular activities can support stress reduction and enhance resilience.

Academic Counseling and Mentorship

Academic advisors, counselors and mentors ought to be educated on how to identify symptoms of distress among students early enough and how to efficiently cope with academic stresses.

The researcher has also indicated that long term research should be conducted in order to address other critical mental health issues among students in the university.

Declarations

Author Contributions

Ahsanul Haque Rifat conceptualized the study, designed the research framework, contributed to the methodology, supervised the overall research process, and critically reviewed and revised the manuscript for important intellectual content. Israt Jahan Bithi conducted the literature review, collected and analyzed the data, prepared the initial draft of the manuscript, and contributed to the interpretation of findings. Mahamudul Hasan supported the conceptualization and research design, assisted in data analysis and interpretation, contributed to structuring the manuscript, and provided final critical revisions. All authors read, revised, and approved the final version of the manuscript and agree to be accountable for all aspects of the work.

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Clinical Trial Number: Not applicable.

Human Ethics and Consent: All the participants provided informed consent and other required consent prior to data collection. There was voluntary participation and the privacy was fully taken care of.

Consent to Publish Declaration: The participants presented their consent to the use of anonymized data to be published, and the author also presented the complete declaration to publish the article.

Data Availability declaration: The evidence towards the findings of this research is available with the author on reasonable request.

Author Contribution declaration: The author had a singular consideration, design, research, analysis and preparation of the manuscript.

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References

1. Ahmed, O., Sultana, T., Alam, N., Griffiths, M. D., & Hiramoni, F. A. (2022). Problematic social media use, personality traits, and mental health among Bangladeshi university students. *Journal of Technology in Behavioral Science*, *7*(2), 183-191.
2. Akhter, R., & Sumi, F. R. (2014). Socio-cultural factors influencing entrepreneurial activities: A study on Bangladesh. *IOSR Journal of Business and Management*, *16*(9), 1-10.

3. Al-Mamun, F., Abdullah, A. M., ALmerab, M. M., Mamun, M. A., & Mamun, M. A. (2024). Prevalence and factors associated with depression and anxiety among the Bangladeshi university entrance test-taking students using GIS technology. Scientific Reports, 14(1). https://doi.org/10.1038/s41598-024-72235-z
4. Alonso, J. (2024, September 11). College students are less depressed, more mentally well. Inside Higher Ed. https://www.insidehighered.com/news/students/physical-mental-health/2024/09/11/college-students-are-less-depressed-more-mentally
5. American College Health Association. (2018). American college health association-National College Health Assessment II: Undergraduate student reference group data report fall 2018. *Silver Spring, MD: American College Health Association*.
6. Andraus, G. S., Vieira, F. M., De Mello Candido, G., Patino, G. P., Bernardelli, R. S., & De Palma, H. L. A. (2023). Associations between Lifestyle and Sociodemographic Factors in Medical Students: A Cross Sectional Study. Journal of Lifestyle Medicine, 13(1), 73–82. https://doi.org/10.15280/jlm.2023.13.1.73
7. Aslan, I., & Polat, H. (2024). Investigating social media addiction and impact of social media addiction, loneliness, depression, life satisfaction and problem-solving skills on academic self-efficacy and academic success among university students. *Frontiers in Public Health*, *12*, 1359691.
8. Begum, M., & Muniruzzaman, M. (2024). Access to Mental Health Care and Navigating Psychological Distress: A Cross-sectional Study Among Bangladeshi University Students.
9. Bilgel, N. G., & Bayram, N. (2010). Turkish version of the depression anxiety stress scale (DASS-42): Psychometric properties.
10. Calcaterra, V., Rossi, V., Tagi, V. M., Baldassarre, P., Grazi, R., Taranto, S., & Zuccotti, G. (2023). Food Intake and Sleep Disorders in Children and Adolescents with Obesity. *Nutrients*, *15*(22), 4736.
11. Chai, W., & Shek, D. T. (2024). Mental health profiles and the related socio-demographic predictors in Hong Kong university students under the COVID-19 pandemic: a latent class analysis. *Psychiatry research*, *331*, 115666.
12. Chowdhury, S. R., Kabir, H., Mazumder, S., Akter, N., Chowdhury, M. R., & Hossain, A. (2022). Workplace violence, bullying, burnout, job satisfaction and their correlation with depression among Bangladeshi nurses: A cross-sectional survey during the COVID-19 pandemic. *PLoS One*, *17*(9), e0274965.
13. Coakley, K. E., Cargas, S., Walsh-Dilley, M., & Mechler, H. (2022). Basic needs insecurities are associated with anxiety, depression, and poor health among university students in the state of New Mexico. *Journal of Community Health*, *47*(3), 454-463.
14. Dessauvagie, A. S., Dang, H. M., Nguyen, T. A. T., & Groen, G. (2022). Mental Health of University Students in Southeastern Asia: A Systematic Review. Asia-Pacific journal of public health, 34(2-3), 172–181. https://doi.org/10.1177/10105395211055545
15. Devine, J., Camfield, L., & Gough, I. (2008). Autonomy or dependence–or both?: Perspectives from Bangladesh. *Journal of Happiness Studies*, *9*, 105-138.
16. Frankham, C., Richardson, T., & Maguire, N. (2020). Psychological factors associated with financial hardship and mental health: A systematic review. *Clinical psychology review*, *77*, 101832.
17. Goldberg, D., & Williams, P. (2000). General health questionnaire (GHQ). Swindon, Wiltshire, UK: nferNelson.
18. Haque, M. A., Ananna, R. S., Hasan, N., Aktar, M. F., & Zakaria, A. F. M. (2024). Social norms and maternal health information-seeking behavior among adolescent girls: A qualitative study in a slum of Bangladesh. *PloS one*, *19*(12), e0315002.
19. Hosen, I., Mamun, F. A., & Mamun, M. A. (2021). The role of sociodemographics, behavioral factors, and internet use behaviors in students' psychological health amid COVID-19 pandemic in Bangladesh. Health Science Reports, 4(4). https://doi.org/10.1002/hsr2.398

20. Hossain, M. J., Ahmmed, F., Khandokar, L., Rahman, S. M. A., Hridoy, A., Ripa, F. A., Emran, T. B., Islam, M. R., Mitra, S., & Alam, M. (2022). Status of psychological health of students following the extended university closure in Bangladesh: Results from a web-based cross-sectional study. PLOS Global Public Health, 2(3), e0000315. https://doi.org/10.1371/journal.pgph.0000315
21. Hossain, S., Anjum, A., Uddin, M. E., Rahman, M. A., & Hossain, M. F. (2019). Impacts of socio-cultural environment and lifestyle factors on the psychological health of university students in Bangladesh: A longitudinal study. Journal of Affective Disorders, 256, 393–403. https://doi.org/10.1016/j.jad.2019.06.001
22. Hoteit, R., Bou-Hamad, I., Hijazi, S., Ayna, D., Romani, M., & Morr, C. E. (2024). A cross-sectional study of university students' mental health and lifestyle practices amidst the COVID-19 pandemic. PLoS ONE, 19(4), e0302265. https://doi.org/10.1371/journal.pone.0302265
23. Huda, M. N., Billah, M., Sharmin, S., Amanullah, A. S. M., & Hossin, M. Z. (2021). Associations between family social circumstances and psychological distress among the university students of Bangladesh: To what extent do the lifestyle factors mediate? BMC Psychology, 9(1). https://doi.org/10.1186/s40359-021-00587-6
24. Islam, M. A., Barna, S. D., Raihan, H., Khan, M. N. A., & Hossain, M. T. (2020). Depression and anxiety among university students during the COVID-19 pandemic in Bangladesh: A web-based cross-sectional survey. PloS one, 15(8), e0238162.
25. Islam, Z., Hsan, K., Islam, S., Gozal, D., & Hossain, M. (2021). Assessment of sleep quality and its association with problematic internet use among university students: a cross-sectional investigation in Bangladesh. *Sleep Science*, *14*(S 01), 8-15.
26. Keles, B., McCrae, N., & Grealish, A. (2020). A systematic review: the influence of social media on depression, anxiety and psychological distress in adolescents. *International journal of adolescence and youth*, *25*(1), 79-93.
27. Kosendiak, A. A., Adamczak, B. B., Kuźnik, Z., & Makles, S. (2024). Impact of Medical School on the Relationship between Nutritional Knowledge and Sleep Quality—A Longitudinal Study of Students at Wroclaw Medical University in Poland. *Nutrients*, *16*(2), 278.
28. Liyanage, S., Saqib, K., Khan, A. F., Thobani, T. R., Tang, W. C., Chiarot, C. B., ... & Butt, Z. A. (2021). Prevalence of anxiety in university students during the COVID-19 pandemic: a systematic review. *International journal of environmental research and public health*, *19*(1), 62.
29. Mamun, M. A., Hossain, M. S., & Griffiths, M. D. (2022). Mental health problems and associated predictors among Bangladeshi students. *International Journal of Mental Health and Addiction*, *20*(2), 657-671.
30. Montazeri, A., Harirchi, A. M., Shariati, M., Garmaroudi, G., Ebadi, M., & Fateh, A. (2003). The 12-item General Health Questionnaire (GHQ-12): translation and validation study of the Iranian version. *Health and quality of life outcomes*, *1*, 1-4.
31. O'Donnell, A. W., Redmond, G., Skattebol, J., Allen, J., Thomson, C., & MacDougall, C. (2023). The relationship between financial hardships and the development of risk-taking behaviors: the protective role of extracurricular activities. *Youth & Society*, *55*(5), 895-923.
32. Oksanen, A., Laimi, K., Björklund, K., Löyttyniemi, E., & Kunttu, K. (2017). A 12-year trend of psychological distress: National study of Finnish university students. *Central European journal of public health*, *25*(2), 113-119.
33. Ovi, M. R., Siddique, M. a. B., Ahammed, T., Chowdhury, M. a. B., & Uddin, M. J. (2024). Assessment of mental wellbeing of university students in Bangladesh using Goldberg's GHQ-12: A cross-sectional study. Health Science Reports, 7(3). https://doi.org/10.1002/hsr2.1948
34. Pascoe, M., Bailey, A. P., Craike, M., Carter, T., Patten, R., Stepto, N., & Parker, A. (2020). Physical activity and exercise in youth mental health promotion: a scoping review. *BMJ open sport & exercise medicine*, *6*(1), e000677.
35. Piya, F. L., Amin, S., Das, A., & Kabir, M. A. (2022). Impacts of COVID-19 on the education, life and mental health of students in Bangladesh. *International Journal of Environmental Research and Public Health*, *19*(2), 785.

36. Rahimi, A., Wardak, M. F., & Shayan, N. A. (2024). Assessing the relationship between lifestyle factors and mental health outcomes among Afghan university students. *Journal of Affective Disorders Reports*, *17*, 100827.
37. Rahman, M. S., Som, H. M., Rahman, M. H. A., & Karim, D. N. (2024). A bibliometric analysis on intended and actual turnover in higher education. *Higher Education Quarterly*, e12564.
38. Roldán-Espínola, L., Riera-Serra, P., Roca, M., García-Toro, M., Coronado-Simsic, V., Castro, A., Navarra-Ventura, G., Vilagut, G., Alayo, I., Ballester, L., Blasco, M. J., Almenara, J., Cebrià, A. I., Echeburúa, E., Gabilondo, A., Lagares, C., Piqueras, J. A., Soto-Sanz, V., Mortier, P., . . . Gili, M. (2024). Depression and lifestyle among university students: A one-year follow-up study. The European Journal of Psychiatry, 38(3), 100250. https://doi.org/10.1016/j.ejpsy.2024.100250
39. Royal College of Psychiatrists (2011) Mental health of higher education students. https://www.rcpsych.ac.uk/docs/default-source/improving-care/better-mh-policy/college-reports/mental-health-of-higher-education-students-(cr231).pdf
40. Sen, S. K., Apurba, M. S. A., Mrittika, A. P., Anwar, M. T., Al Islam, A. A., & Noor, J. (2023). Unveiling Shadows: A Data-driven Insight on Depression among Bangladeshi University Students. *Heliyon*.
41. Sevilla, Y. M., Picardo, R. L., Serad, J. B., Bacarisas, J. P., Coronado, R. S., & Amores, G. E. A. (2024). Socio-Demographic and Health-Related Predictors of Perceived Academic Performance of Students: An Academe-Centered Analysis. *International Journal of Research and Scientific Innovation*, *11*(9), 672-721.
42. Shafiq, S., Nipa, S. N., Sultana, S., Rifat-Ur-Rahman, M., & Rahman, M. M. (2021). Exploring the triggering factors for mental stress of university students amid COVID-19 in Bangladesh: a perception-based study. *Children and youth services review*, *120*, 105789.
43. Shek, D. T., Chai, W., Li, X., & Dou, D. (2023). Profiles and predictors of mental health of university students in Hong Kong under the COVID-19 pandemic. *Frontiers in Psychology*, *14*, 1211229.
44. Simon, R. W. (2002). Revisiting the relationships among gender, marital status, and mental health. *American journal of sociology*, *107*(4), 1065-1096.
45. Tohan, M. M., Ahmed, F., Juie, I. J., Kabir, A., & Rahman, M. A. (2024). Outdoor recreational activities and mental well-being of geriatric people in Bangladesh: structural equation modelling. *Discover Psychology*, *4*(1), 33.
46. Williams, B. L., Washington, A. A., & Le, A. L. (2023). *Differences in Anxiety, Depression and Coping Skills in College Student-Parents Across Different Household Structures and Marital Status* (Master's thesis, Brenau University).
47. World Health Organization: WHO. (2022, June 8). *Mental disorders*. https://www.who.int/news-room/fact-sheets/detail/mental-disorders
48. Zila-Velasque, J. P., Grados-Espinoza, P., Regalado-Rodríguez, K. M., Sosa-Nuñez, F., Alcarraz-Jaime, A., Cortez-Soto, A. G., Chambergo-Michilot, D., & Soriano-Moreno, A. N. (2023). Sociodemographic and educational factors associated with mental health disorders in medical students of clinical years: A multicenter study in Peru. PLoS ONE, 18(6), e0286338. https://doi.org/10.1371/journal.pone.0286338

Figures

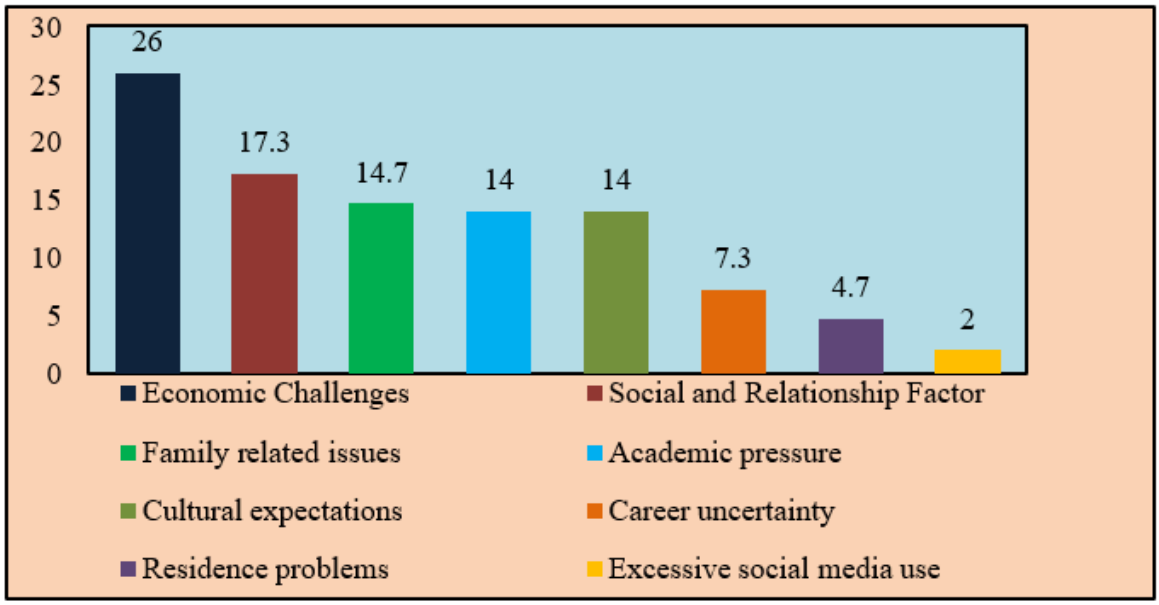


Figure 1

Major Causes of Mental Health Challenges of the Respondents