

Stress, Anxiety and Depression among College Students of Guwahati City during COVID-19 Pandemic and Their Utilization of Mental Health Services

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Abstract:

Background: The COVID-19 pandemic had caused sudden and significant changes in the lives of the students. To protect the health of the students, the education institutions were closed and there had been quick transition to online classes. There was lockdown and they had constraints on physical movement and social activities. Because all these changes were unprecedented and intensive, it was bound to affect the mental health of the students. Hence, this study was undertaken to assess the prevalence of depression, anxiety and stress among college going students and their utilization of Mental Health Services.

Methods: A Descriptive cross-sectional study was conducted among 440 Undergraduate students of 10 colleges of Guwahati city, age group between 16- 25 years from April 2022 to September 2022. A predesigned, pretested questionnaire consisting of socio-demographic profile, personal characteristics of students, the 21- item DASS scale and information on utilization of Mental Health Services by the college students was used. Data were entered in IBM SPSS 26. Descriptive statistics like frequencies and percentages were used to express data. Chi-square test was used to check significance between proportions.

Results: Present study findings revealed that stress (44.5%), anxiety (24.78%) and depression (17.05%) were prevalent among the college students of Guwahati city during the COVID-19 pandemic.

Gender is significantly associated with stress, with males being 3.7 times more at risk compared to females. Socioeconomic status was significantly associated with stress, anxiety and depression. Students who lived in hostels, paying guests etc. were more prone to develop psychological distress compared to the students who lived with their families. Only 29.9% of the students had access to mental health counsellors in their educational institutions. Among the participants who had access to mental health counsellors, only 7.8% ever used the services.

Conclusion: There was concerning prevalence of stress, anxiety and depression among college students during COVID-19 pandemic and availability of mental health services in their study institutions and utilisation of mental health services were alarmingly low. Awareness programmes about mental health among college students and emergency preparedness for major worldwide disasters like the COVID-19 pandemic are necessary.

Keywords: Pandemic, Anxiety, Depression, DASS, Mental Health Services.

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Introduction

The emergence of a pandemic causes psychosocial disruption in response to a threat. According to the World Health Organization (WHO), at least one third of the population is going to suffer from psychopathological manifestation [1]. The first reac-

tion is panic, due to the fear of getting infected or even infecting our loved ones [2].

Fear, worry, and stress are normal responses to perceived or real threats, and at times when we are faced with uncertainty or the unknown. So, it is normal and understandable that people were expe-

riencing fear in the context of the COVID-19 pandemic.

The first case of COVID-19 in India, was reported on 30th January 2020 and subsequently nationwide lockdown was implemented to restrict the increasing number of cases. We were hit by three waves of COVID-19, and among the Northeastern states, Guwahati city suffered the brunt of large number of cases and fatality.

College going adolescent students are more prone to psychological distress and downstream negative emotions under normal circumstances. It is known that the prevalence of epidemics accentuates or creates new stressors including fear and worry for oneself or loved ones, constraints on physical movement and social activities. A recent review of virus outbreaks and pandemics documented stressors such as infection fears, frustration, boredom, inadequate supplies, inadequate information, financial loss and stigma.

This research is mainly focused on college students of various colleges in the city of Guwahati who have been greatly affected by the pandemic, both physically as well as mentally. Although several studies have assessed mental health issues during epidemics, most of them have focused on health workers, patients and the general population, whose findings may not be applicable to the college students. Since college students are particularly vulnerable to mental health issues, it is pertinent to explore their mental health during this unprecedented crisis. Despite the high prevalence of mental health issues, college students tend to underutilize mental health services [3,4,5,6]. Stigma, students' view about getting psychological help for themselves, is another barrier in seeking help and utilizing mental health services³.

With this background, this study was undertaken to assess the prevalence of depression, anxiety and stress among college going students and their use of Mental Health Services.

Research Questions: What is the prevalence of depression, anxiety and stress among college students of Guwahati city during COVID-19 pandemic?

What are the predictors of mental health symptoms and to what extent the students have utilized mental health services?

Objectives

1. To assess the levels of depression, anxiety and stress among college students of Guwahati city during COVID-19 pandemic.
2. To identify the various risk factors associated with stress, anxiety and depression among the college students.

3. To assess the utilization of Mental Health Services by the college students of Guwahati city, Assam.

Materials & Methods

The present Descriptive cross-sectional study was conducted among Undergraduate students of various colleges of Guwahati city, age group between 16- 25 years from April 2022 to September 2022.

Sample Size: Considering the wide variation in the prevalence of stress, anxiety and depression among adolescent students and lack of available literature, prevalence P was considered as 0.5. By using the formula $4pq/l^2$, where allowable error l was 10 percent of P, the calculated sample size was 400. A 10% oversampling was done to take into account an inadequate response giving a final sample size of 440.

Inclusion Criteria

1. Undergraduate students studying in the selected colleges for the study in the age group of 16-25 years.
2. Students who agreed to give consent.

Exclusion Criteria

- 1) Students who had known psychiatric morbidities and were under medication.
- 2) Students who were found to be absent in the college after two consecutive visits.

Sampling Technique: Out of 103 colleges, 10%, i.e., 10 colleges were selected randomly. From each selected colleges, a class was selected randomly. If there was more than one stream in that institution, one was selected randomly, and if there was more than one section, one section was also selected randomly. From each selected class, the lottery method was used to select 22 students from the attendance register. If the randomly selected student did not meet the inclusion criteria, the next number on the roll was selected. Prior permission had been obtained from the principal of the institutions.

Data Collection Tools

A predesigned, pretested questionnaire consisting of

- 1) Socio-demographic, academic profile, personal characteristics of students
- 2) The 21- item DASS scale and
- 3) Information on utilization of Mental Health Services by the college students

Statistical Analysis: Data were entered in IBM SPSS version 26 for Windows (IBM Inc. Armonk, New York, USA). Data were presented in frequencies and percentages. Chi-square test was used to test the significance between proportions.

A p value of <0.05 was considered as statistically significant.

Ethical Considerations: The study was undertaken after obtaining approval from Institutional Ethics Committee of Gauhati Medical college and Hospital. Informed consent was taken from each participant.

Results

In this study out of the total of 440 participants, 75 were suffering from mild to moderate depression, 109 were suffering from anxiety, 196 were suffering from stress (table1). Most of the participants 63% were females followed by males (37%) (Figure 1). Most of the participants were Hindus (58.9%) followed by Muslims (26.5%) & Christians (14.6%). Majority of the participants belonged to arts stream (56.7%) followed by science (33.8%) and commerce (9.5%) streams. Most of the participants lived with their family (61.82%), majority of the participants lived in a nuclear family (78.6%). Out of the participants who were not residing in a family, they lived in hostel (40.9%) followed by paying guests (23.9%) and other rented accommodations. Around 31.9% of the participants rated their mental health as great before the start of the pandemic,

whereas 68.1% of the participants rated their mental health as neither great nor poor. Most of the participants (65.9%) stated that lack of face-to-face interaction with teachers hampered their understanding of the topics covered in the online classes. Most of the participants (57.7%) stated that their families helped them to cope with stress and anxiety during the pandemic. Most of the participants (74.7%) feared that their family members may get infected by COVID-19, and 54.4% were scared about getting infected themselves. Out of the participants 81.8% were not infected by COVID-19. Most of the participants (70.1%) stated that their college did not have a mental health counselor. Gender is significantly associated with stress with males being 3.7 times more at risk compared to females (table 2). Socioeconomic status is significantly associated with stress, anxiety and depression (table 3). Depressive, stress and anxious symptoms were also substantially correlated with staying with family; individuals who did so reported less depressive and anxious symptoms overall (table 4). Out of the participants only 29.9% had access to a mental health counsellor at their educational institution (figure 3). Out of participants with available mental health counsellors only 7.8% sought help (figure 4).

Table 1: Distribution of participants with Depression, Anxiety and Stress

N=440	Normal	Mild	Moderate	Severe	Extremely Severe	Total
Depression	365	70	5	0	0	75 with D pression(17.05%)
Anxiety	331	72	35	2	0	109 with Anxiety (24.78%)
Stress	244	57	51	64	24	196 with Stress (44.5%)

Comment: Stress (44.5%), anxiety (24.78%) and depression (17.05%) were present among the participants.

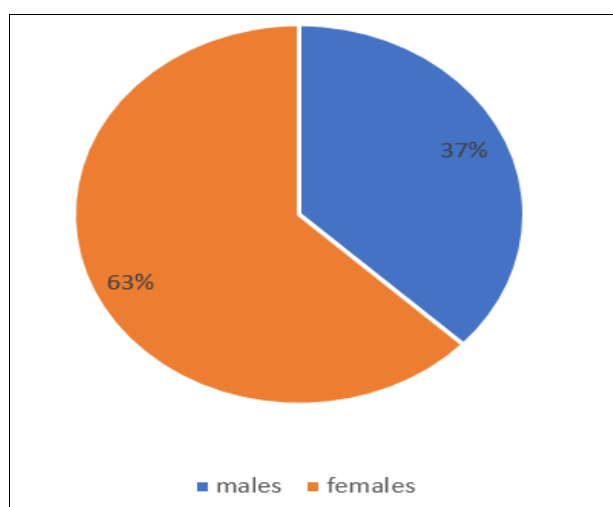


Figure 1: Distribution of participants with respect to gender

Comment: Majority 277 (63%) of the participants were females followed by males at 163(37%)

Table 2: Relationship between gender and depression, anxiety & stress

Gender	Depression +	Depression-	P= 0.2157 OR: 1.420 (0.8581 to 2.351)
Males	33	130	
Females	42	235	
Gender	Anxiety +	Anxiety -	P: 0.0525 OR: 1.555 (1.001 to 2.415)
Males	49	114	
Females	60	217	
Gender	Stress +	Stress -	P: <0.0001 OR: 3.7 (2.463 to 5.560)
Males	105	58	
Females	91	186	

Comment: Gender is significantly associated with stress.

Table 3: Distribution of participants with socioeconomic class (Modified B.G. Prasad scale)

Socio-Economic Class	Depression/Anxiety/ Stress + N (%)	%	Depression/Anxiety/ Stress-	%	Total	Chi-Square test for trend: 47.007 P value: <0.0001
Class I	12 (6.12)	18.18	54 (22.13)	81.82	66	
Class II	34 (17.35)	38.64	54 (22.13)	61.36	88	
Class III	41 (20.92)	37.27	69 (28.28)	62.73	110	
Class IV	46 (23.5)	51.11	44 (18.03)	48.89	90	
Class V	63 (32.14)	73.26	23 (9.43)	26.74	86	
Total	196 (100)	44.55	244 (100)	55.45	440	

(N=440)

*comment: socioeconomic class (BG PRASAD) is significantly associated with depression anxiety and stress.

Table 4: Relationship between staying with family and depression, anxiety & stress

Staying with Family	Depression +	Depression-	Total	P:<0.0001 OR: 0.1631 (0.09333 to 0.2849)
Yes	20	252	272	
No	55	113	168	
Total	75	365	440	
Staying With Family	Anxiety +	Anxiety-	Total	P:<0.0001 OR: 0.1484 (0.09170 to 0.2502)
Yes	31	241	272	
No	78	90	168	
Total	109	331	440	
Staying with Family	Stress +	Stress-	Total	P:<0.0001 OR: 0.2137 (0.1414 to 0.3230)
Yes	83	189	272	
No	113	55	168	
Total	196	244	440	

Comment: Staying with family is protective against depression, anxiety and stress.

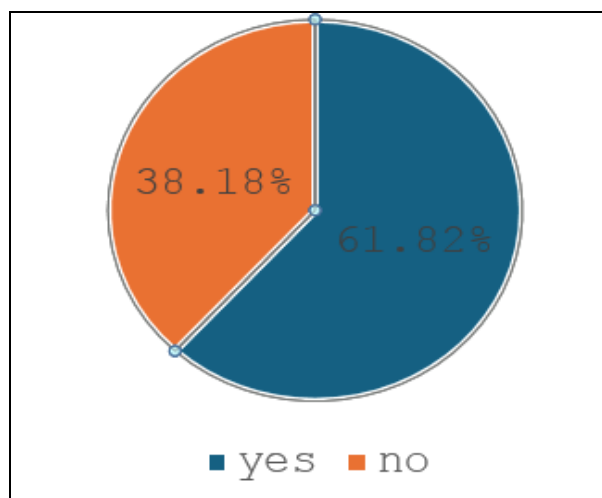


Figure 2: Distribution of participants with respect to living with family

Comment: 61.82 % of the participants lived with family.

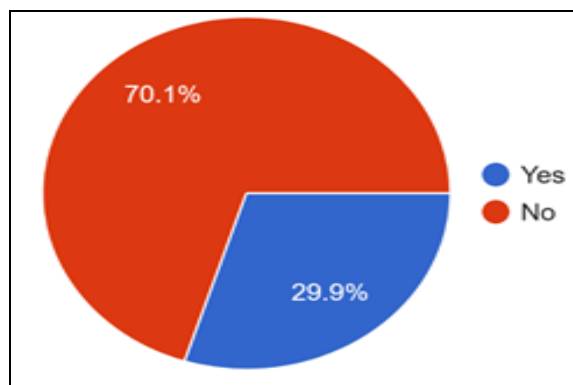


Figure 3: Students who had access to mental health counsellors at their educational institutions

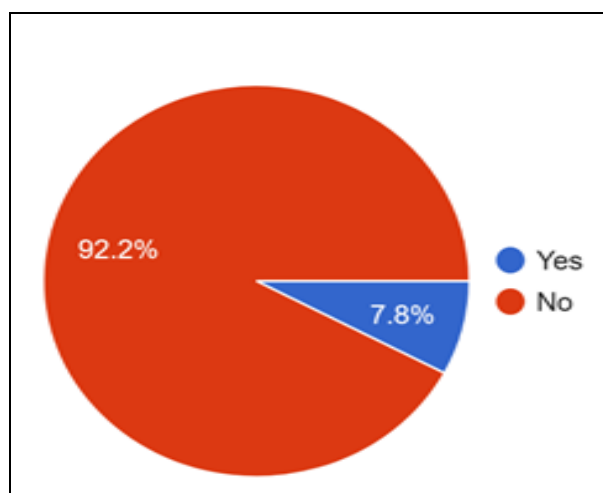


Figure 4: students who approached the mental health counsellors in the institutions that provided mental health counsellors

Discussion

Our present study describes Stress, Anxiety and Depression among College students of Guwahati city during COVID-19 pandemic and their utilization of Mental Health Services. We found that stress (44.5%), anxiety (24.78%) and depression (17.05%) were prevalent problems of the college students during the COVID-19 pandemic which is also reported by multiple other studies. [7,8,9,10] Males were significantly more vulnerable to develop stress. We also found that lower economic status was significantly associated with psychological distress. Students who lived in hostels, paying guests etc were more prone to develop psychological distress compared to the students who lived with their families which is also reported by various other studies in which social isolation, living away from their families lead to increased stress, anxiety and depression. [11,12,13,14] In spite of the high prevalence of stress, anxiety and depression among the participants the availability of mental health services in their study institutions were only 29.9% with majority of the students not having access to mental health counsellors. Among the participants who have access to mental health counsellors only

7.8% ever used the services which is alarming. These key findings are very concerning considering that mental health is strongly associated with student wellbeing, academic outcomes, and retention. [15,16] Byung Choi et al in their study stated that the transition from student to doctor was significantly impacted, especially with regard to medical student education. According to their study, student assistantship interruptions had the greatest impact on students' readiness and confidence, and similar views were also shared by our participants [15]. In another study by department of Psychiatry, Warneford Hospital, Oxford reported that the COVID-19 pandemic caused significant disruptions to the lives and academic pursuits of medical students [16]. In a study by Wenjun Cao et al shared that when faced with public health problems, college students' mental health is greatly impacted, and they need the attention, assistance, and support of society, families, and colleges. The government and educational institutions should work together to find a solution to this issue so that college students can receive timely, high-quality crisis-oriented psychological assistance. [17] In a study by Utsav Raj et al also stated that most of the students were

mentally stressed in conditions of threat. Most of the students were worried about their study and they were not satisfied with the classes which are conducted online. [18]

Study limitations: Our research has certain shortcomings. First off, while we report the mental health status of students shortly after the COVID-19 outbreak, we do not assert a causal association in our study. We accept that a significant number of students may have experienced mental health issues prior to the pandemic, with some reporting worsening symptoms following the outbreak. We feel that it is critical to measure and record student mental health during the epidemic, even if our study is unable to establish a causal association. This way, practitioners may recognise the gravity of the problem and devise strategies for providing better support for students.

Conclusion

Our research shows that characteristics such as gender and socioeconomic position do have a substantial influence in the worrisome prevalence of stress, anxiety, and depression among our college-bound participants. The participants either did not have access to mental health counsellors or did not use the services because they had less awareness, which explains why the usage of mental health services is low. To equip students to better care for their mental health, awareness programmes about mental health and emergency preparedness for major worldwide disasters like the COVID-19 pandemic are necessary.

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