

Original Research Article

An analytical survey among academic satisfaction and mental stress of students' in COVID-19

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ABSTRACT

Background: The coronavirus disease 2019 pandemic has shown a significant impact on the psychological wellbeing of health care workers. The aim of the study was to evaluate the impact of the COVID-19 pandemic on the psychological health of allied health sciences students in Bangalore. During the months of January and April 2022, 200 completed a survey containing measures of depression, anxiety and stress [using depression anxiety and stress-21 scale (DASS-21)] and questions regarding potential predictors such as the role of COVID-19 perception, availability of mental health support and study-related factors. The student t-test revealed factors associated with the presence of significant psychiatric symptoms.

Methods: An online survey of a sample consisting of 140 students assessed sociodemographic, DASS 21 and their emotions and concerns during the outbreak.

Results: Among the participants, 63.6% screened positive for moderate depression, 25% for moderate and severe anxiety and 35% and 64.7% for mild stress. Girls reported significantly more depression, anxiety, and stress than boys. Those who received mental health support reported significantly lesser depression, anxiety, and stress. Those who felt that quality of life was heavily impacted due to COVID-19 reported significantly high depression, anxiety, and stress. Most of the students were having mild degree of depression, anxiety and stress.

Conclusions: Poor psychological well-being was prevalent in allied health sciences students; however, mental health measures have been shown to significantly reduce the mental health burden academically.

Keywords: Allied health sciences, Anxiety, COVID-19, Depression, Pandemic, Psychological health, Stress

INTRODUCTION

Disease outbreaks have been shown to negatively impact individual mental health and well-being. Multiple risk factors were addressed. Psychological distress is more likely to develop among women and those between 18 and 24 years old.¹ To our knowledge, there are currently fewer studies assessing stress among students during the quarantine related to the COVID-19 pandemic in India. Therefore, the aim of this study was to examine the qualitative stress level among university students following the outbreak of Coronavirus disease and the suspension of in-person teaching.²

Objectives of the study

To determine the extent of stress and anxiety among the students. To find out which group is affected more with depression, anxiety and stress.

METHODS

An online survey was distributed using non-probability convenient sampling to students from different levels living in Bangalore. Google forms was used to create a link for the survey, which was posted in an announcement on the different platform of online OT groups; a reminder

was sent five days later. The study period was for four months from August 2022 to November 2022 consisting of 200 sample size.

Inclusion criteria

Students studying in institute or university age 18-24 years. Students who received no treatment. Students who feel panic in certain situations

Exclusion criteria

Patient not willing to give informed consent. Students with any diagnosed psychiatric illness. Students with any physical disability.

Methodology

The participants fulfilling the inclusion criteria will be enrolled in the study only after obtaining informed consent. The form will be distributed after the introductory and orientation program online and then data will be analyzed statistically. The students who attain the one or more variables will send OT stress and coping strategies via mail.

Assessment tools³

The depression, anxiety and stress scale- 21 items (DASS-21) is a set of three self-report scales designed to measure the emotional states of depression, anxiety and stress. Each of the three DASS-21 scales contains 7 items, divided into subscales with similar content. The depression scale assesses dysphoria, hopelessness, devaluation of life, self-deprecation, lack of interest/involvement, anhedonia and inertia. The anxiety scale assesses autonomic arousal, skeletal muscle effects, situational anxiety, and subjective experience of anxious affect. The stress scale is sensitive to levels of chronic nonspecific arousal. It assesses difficulty relaxing, nervous arousal, and being easily upset/agitated, irritable/over-reactive and impatient. Scores for depression, anxiety and stress are calculated by summing the scores for the relevant items. The DASS-21 is based on a dimensional rather than a categorical conception of psychological disorder.

It is a self-administered 21-item instrument created by the University of New South Wales, Australia, which screens for depression, anxiety and stress based on the recommended severity thresholds for depression, anxiety, and stress subscales. For the purpose of this study, we examined depression, anxiety and stress with cut-off scores of >9, >6 and >10, respectively. Each subscale was composed of seven items, and each response was rated from 0 to 3, where 0 indicated 'Did not apply to me' and 3 indicated 'Applied to me most of the time'. Items 3, 5, 10, 13, 16, 17, and 21 formed depression subscales. In the depression subscales, scores of 0-9 were considered 'normal', 10-12 as 'mild', 13-20 as 'moderate', 21-27 as 'severe' and 28-42 as 'extremely severe'. Items 2, 4, 7, 9,

15, 19 and 20 formed anxiety subscales. The anxiety subscores were categorized as, 'normal' (0-6) 'mild' (7-9), 'moderate' (10-14), 'severe' (15-19) and 'extremely severe' (20-42) (Table 1). Items 1, 6, 8, 11, 12, 14 and 18 formed stress subscales. The stress subscale scores were categorized into 'normal' (0-10), 'mild' (11-18), 'moderate' (19-25), 'severe' (26-33) and 'extremely severe' (>34) stress. This scale has been shown to have adequate validity and reliability and was used in various studies evaluating psychological impact in the Saudi population. Participants were asked to report the presence of a symptom over the past week. Scores for three emotional states were calculated by adding the points for the relevant items (questions 3, 5, 10, 13, 16, 17, 21 for depression; questions 1, 6, 8, 11, 12, 14, 18 for stress; questions 2, 4, 7, 9, 15, 19, 20 for anxiety) and double up.

Table 1: Recommended cut-off scores for conventional severity labels (normal, moderate, severe).

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

RESULTS

It is significant that most of the population suffering with stress related issues are 18 years of age when compare others. Also 20% of them is consuming alcohol to get rid of the problems or to suppress their stress. 60% of the students are staying with their friends in paying guest and rest are preferring college hostel PG. It could be another precipitating factor to getting quick anxious due to lack of parental or family support. Students mostly prefer to go out and opt for their higher education but also do not realize the repercussion of it and face problems when actual consequences arise.

Table 2: Socio demographic characteristics of study participants (n=140).

Character	Category	number	Percentage
Age group (years)	18 to20	105	75
	>20	35	25
Sex	Boys	70	50
	Girls	70	50

The study included 140 students, and majority 105 (75%) were in the age group of 18-20 years and the ration of each gender was equal (Table 2). The prevalence of depression, anxiety and stress among the students was 55%, 55% and 85% respectively. In depression, many students were in moderate stage (63.6%) and in anxiety, the majority of students where in sever stage (45.5%) whereas in stress, majority (64.7%) of students were in mild stage (Table 3).

Table 3: Distribution of study participants based on severity of the psychological traits.

	Mild		Moderate		Severe		Extremely severe	
	Number	%	Number	%	Number	%	Number	%
Depression n=77 (55%)	21	27.3	49	63.6	7	9.1	0	0
Anxiety n=77 (55%)	0	0	35	45.5	35	45.5	7	9.09
Stress n=119 (85%)	77	64.7	35	45.5	0	0	7	9.09

Table 4: Psychological traits in relation to socio-demographic profile.

Psychological trait %		Age		>20		Sex		Girls	% Girls
		18-20	%			Boys	%		
Depression N=77	55%	56	72.72	21	27.3	21	27.3	56	72.72
P value		0.01				0.11			
Anxiety N=77	55%	70	90.9	7	9.09	35	45.5	42	54.54
P value		0.01				0.05			
Stress N=119	85%	98	82.35	21	17.6	56	47.1	63	52.94
P value		0.17				0.12			

Table 5: Distribution of severity of psychological traits among university students in relation to age and sex.

	Age		>20		Sex		Girls	% Girls
	18-20	%			Boys	%		
Depression N=77								
Mild	14	18.18	7	9.09	7	9.09	14	18.18
Moderate	35	45.45	14	18.18	14	18.18	35	45.45
Severe	7	9.09					7	9.09
Extremely severe	0	0	0	0	0	0	0	0
Total	56		21		21		56	
Anxiety N=77								
Mild	0	0	0	0	0	0	0	0
Moderate	35	45.45	0	0	21	17.64	14	18.18
Severe	28	23.52	7	9.09	14	18.18	21	17.64
Extremely severe	7	9.09	0	0	0	0	7	9.09
Total	70		7		35		42	
Stress N=119								
Mild	63	52.94	14	18.18	35	45.45	42	35.29
Moderate	28	23.52	7	9.09	21	17.64	14	18.18
Severe	0	0	0	0	0	0	0	0
Extremely severe	7	9.09	0	0	0	0	7	9.09
Total	98		21		56		63	

Depression was seen significantly more among the students aged between 18 to 20 years (72.72%) and more among girls (56%). Though anxiety was observed to be more among 18-20 years (90.9) and more among girls (54.54). Stress was significantly more among girls (52.94%) when compared to boys (Table 4). The overall distribution show that depression is lean towards girls moderately between age 18-24 years whereas anxiety and stress is in relation is between mild to moderate range (Table 5).

DISCUSSION

This study showed high to moderate levels of stress among students during the COVID-19 outbreak. This is most likely due to the mandatory curfew and distance

learning. Female and university students showed a higher level of stress. A study in Kerala also shows higher depression scores in female students and anxiety scores were significantly different in male and female students in both relaxed and stressed states which resembles the present study.⁴ Online stress management programs are recommended to improve stress and coping strategies, as well as prevent further psychological consequences.⁵

The main purpose of this study was to determine the role of psychological distress, including anxiety, social dysfunction, and severe depression, linked to the presence of perceived stress in students. After evaluation, this could help to understand better the psychological malaise of college students. Three factors from DASS-21 will be evaluated that will be accessible online for the next few

months. Once the psychological distress factors are found significant, proper occupational therapy based stress management techniques programs will be organized that will have more emotional self-awareness and will help many students to overcome physical and psychological problems which may reduce their conflicts and maintain their mental health in COVID-19 which is rarely depicted in most of the articles.^{5,7} Amanvermez et al has also mentioned that stress management interventions reduce depression, albeit to a lesser extent than they reduce stress and anxiety.⁸

There were some limitations. Further studies are necessary to conduct longitudinal assessments of psychiatric disorders, such as depression and anxiety, to produce evidence-based mental health interventions during crises. Furthermore, as this is the first survey on the psychological impact of COVID-19 on students, these results could be used as a baseline to investigate the stressors and the extent of their impact. Additionally, a large group can be included to have more specific findings.⁹

CONCLUSION

According to this study, the COVID-19 outbreak caused high to moderate levels of stress among universities students. The mandated curfew and distant schooling are most likely to blame for this. Stress levels were higher in female and university students. To strengthen stress and coping mechanisms and avoid future psychological repercussions, online one to one coping and stress management programmes are advised. It will take more research to develop evidence-based mental health interventions for crises in psychiatric diseases including depression and anxiety. The results of this study could be utilised as a starting point for future research on the stresses and the extent of their effects.

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