ORIGINAL ARTICLE

Depression, Anxiety and Stress Level Among University Students in India During COVID-19 Outbreak

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ABSTRACT

Introduction: Depression and anxiety are examples of psychiatric illnesses that can have a significant influence on one's psychological health. The most prevalent mental illness that may be identified among students is depression. **Objectives:** The goal of the study was to find out how common stress, depression, and anxiety are among university students. The researchers utilised a self-administered questionnaire that included socio-demographic and DASS-21 questions. **Results:** The research comprised 201 university students with age range from 17-36 years old. Females (n=150) made up the majority of the responses. The students were pursuing bachelor's degrees (n=185), foundation (n=9), master's degrees (n=3), doctoral degrees (n=3) and diplomas (n=1). About 12.4% of respondents experienced various levels of stress, 33.3 % of respondents had depression and 35.8 %had anxiety. **Conclusion:** The anxiety followed by depression, and stress found to be more common among the university students during the Covid-19 pandemic.

Keywords: Psychiatric disorders; Stress; Depression; Anxiety; Student

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INTRODUCTION

Coronavirus 2019 (COVID-19) is a coronavirus 2 respiratory disease that produces severe acute respiratory syndrome (SAR-CoV-2). COVID-19 cases first occurred in December 2019 in Wuhan, China, and the disease swiftly spread around the world. The World Health Organization (WHO) declared COVID-19 a worldwide pandemic on March 11, 2020 [1]. There is currently no treatment for the condition, however global immunisation programmes are continuing.

Many nations, including India, have instituted travel bans and lockdowns in order to contain the spread. Massive economic losses have come from the nationwide lockdown, with the majority of activities in several areas, including education, being suspended.

University students confront numerous problems because of the country's educational institutions closing and a move from physical to online classrooms. University students' mental health is predicted to be harmed, with increasing levels of stress, anxiety, and depression probable. While some studies have focused on epidemiological, pathological, and therapeutic issues, others have taken a more holistic approach. During this unprecedented pandemic, the current study concentrated on the psychological impact of COVID-19 among university students.

Depression and anxiety are two psychiatric disorders that can have a major impact on a person's life. Stress, depression, and anxiety are the most common psychological morbidities identified among students. Students are not only burdened by their academics during the COVID-19 pandemic, but they are also at danger of getting mental disorders. [2-4]. Student mental health has been a significant problem in higher education. The COVID-19 pandemic has reintroduced this vulnerable population to the public eye. As a response, the purpose of our research is to offer a timely examination of the impact of the COVID-19 pandemic on university and college students' mental health in terms of depression, anxiety, and stress levels.

MATERIALS AND METHODS

Study design, location and population

This is a cross-sectional multi-centre study conducted at various higher education institutions in India.

Study duration
The study was conducted in the month of May 2021.

Study instruments
Participants first completed a socio-demographic questionnaire that comprised of questions on their age, gender, race, religion, marital status, education level, occupation, socio-economic status, and family members. They next completed the DASS-21 questionnaire, which is a validated questionnaire. The Depression, Anxiety, and Stress Scale (DASS-21) is a self-report questionnaire for determining depression, anxiety, and stress levels. It is made up of 21 components, with seven things in each subscale. On a scale of 0 (didn't relate to me at all) to 3, the participant was asked to rate each item (applied to me very much). The scores on the items per (sub)scale are multiplied by a factor of two to get the sum score. As a result, each subscale's aggregate score will range from 0 to 42. The DASS-21 questionnaire has Cronbach's alpha values of 0.84 for depression, 0.74 for anxiety, and 0.79 for stress.[5]

Sample size
A total of 201 students recruited in the study.

Inclusion criteria
The participants were chosen using five major inclusion criteria. Participants must initially be university students enrolled in Indian higher education institutions. Second, participants in the study must be able to converse in English. The third need is that the individuals be physically capable of being surveyed. Fourth, the student must be enrolled in a diploma or higher programme.

Exlcusion criteria
Students below the age of 17 years of age, Indian students studying overseas and students enrolled in programs lowever than diploma level.

Sampling method and data collection technique
In this investigation, universal sampling was employed. The researchers distributed an online form that has two sections: socio-demographic and DASS questions. The snowball sampling was done.

Statistical analysis
The data was analysed using version 22 of the Statistical Package for the Social Sciences. The descriptive and inferential statistics were used in the data analyses.

Ethical consideration
The SEGi University Research & Ethics Committee approved this study (Research Project Number: SEGiIRF/2021-2/FoM-7/105). The students gave their informed agreement, and the study's participation was entirely voluntary and anonymous. The data collected remains in the fullest confidentiality.

Table I : Summarises the sociodemographic profile of the students.

		Frequency	Percentage(%)
Gender	Female	150	74.6
	Male	51	25.4
	Total	201	100
Religion	Buddhist	1	0.5
	Christian	19	9.5
	Hindu	166	82.6
	Jain	1	0.5
	Muslim	12	6
	No religion	2	1
	Total	201	100
Education level	Bachelor	185	92
	Diploma	1	0.5
	Foundation	9	4.5
	Master	3	1.5
	PhD	3	1.5
	Total	201	100

Study Mode	Full-time	195	97
	Part-time	6	3
	Total	201	100
University/college	Private college	38	18.9
	Private University	108	53.7
	Public college	22	10.9
	Public University	33	16.4
	Total	201	100
	AMET	1	0.5
	Anna university	1	0.5
	Annamalai university	21	10.5
	Bharathiar University	1	0.5
	Cuddalore government dental college	16	8
	Indhiragandhi dental college	1	0.5
	Indira Gandhi institute of dental science	74	36.8
	Ksr college	2	1
	Ksr institute of dental college tiruchengodu	1	0.5
	KSR Institute of dental science and research	3	1.5
	Madras Christian College	1	0.5
	Mahatma Gandhi medical college and Hospital	2	1
	Mahatma Gandhi medical college and research institute	4	2.0
	MGR university	9	4.5
	Prist University Pondicherry	1	0.5
	Puducherry	5	2.5
	Rajah muthiah dental College	11	5.5
	Rajah muthiah dental College and hospital	3	1.5
	Rajah muthiah dental college,annamalai university	1	0.5
	Shri krishnaswamy college for Women	1	0.5
	Sies college of arts science and commerce	1	0.5
	Sri Balaji Vidyapeeth	19	9.5
	Sri Ramachandra university	1	0.5
	Srm	1	0.5
	SSN college of Engineering	1	0.5
	Tamil Nadu	2	1
	Thanjavur	1	0.5
	Vels University	1	0.5
	Total	201	100
	Rural	52	25.9
	Urban	136	67.7
	Total	201	100

Occupational Status	Not working	192	95.5
	Working	9	4.5
	Total	201	100
Marital status	Married	2	1
	Single	199	99
	Total	201	100

RESULTS

The research comprised 201 university students ranging in age from 17 to 36 years old. The majority of those who responded were female students (n=150) and followed with male students (n=51). (Table I).

About 12.4% of respondents experienced various levels of stress, with 4%, 3.5%, 4%, and 1 % having mild, moderate, severe, and extremely severe levels of stress, respectively (Table II). The findings also revealed that 33.3 percent of respondents reported various levels of depression, with 9 %, 11.9 %, 5 %, and 7.5 % having mild, moderate, severe, and extremely severe depression, respectively (Table III). As many as 35.8 percent of respondents experienced various levels of anxiety, including mild (7%), moderate (15.4%), severe (2.5%), and extremely severe (10.9%) level. (Table IV).

The socio demographic variables were tested such as gender, education, religion and working status in relation to the depression, anxiety and stress, however no significant results were obtained.

DISCUSSION

The purpose of this study was to find out how common depression, anxiety, and stress were among Indians during the COVID-19 lockdown. In the current study it was found about 12.4% of respondents experienced various levels of stress, 33.3 percent of respondents had depression and 35.8 percent had anxiety in Indian university or college students. Similarly in the previous study an electronic questionnaire was used to perform a cross-sectional survey. A total of 354 people were chosen at random from a convenience sampling. To measure depression, anxiety, and stress, the Depression Anxiety Stress Scale (DASS-21), a 21-item self-reported questionnaire, was utilised. In total, 25%, 28%, and 11.6% of subjects were moderately to severely depressed, anxious, or stressed, respectively. [6].

Covid-19 has caused damage on individuals throughout the world. In addition to the apparent physical symptoms in infected cases, it has caused significant harm to public mental health. To limit and curb the spread of the virus, India, like other countries, instituted a countrywide shutdown.

Table II : Stress level

		Frequency	Percent
Stress	0-14 Normal	176	87.6
	15-18 Mild	8	4.0
	19-25 Moderate	7	3.5
	26-33 Severe	8	4.0
	34+ Extremely severe	2	1.0
	Total	201	100.0

Table III : Depression level

		Frequency	Percent
Depression	0-9 Normal	134	66.7
	10-13 Mild	18	9.0
	14-20 Moderate	24	11.9
	21-27 Severe	10	5.0
	28+ Extremely severe	15	7.5
	Total	201	100.0

Table IV : Anxiety level

		Frequency	Percent
Anxiety	0-7 Normal Anxiety	129	64.2
	8-9 mild anxiety	14	7.0
	10-14 moderate anxiety	31	15.4
	15-19 severe anxiety	5	2.5
	20+ extremely severe	22	10.9
	Total	201	100.0

In the previous study, 473 respondents were asked to complete a questionnaire that contained questions concerning depression, anxiety, stress, and family wealth. The findings found that individuals who do not have the means to maintain the lockdown in place are the most harmed, and that family wealth is negatively associated with tension, concern, and melancholy. Despite the present circumstances, mental health professionals' stress, anxiety, and sadness levels were found to be within normal limits, demonstrating their ability to remain normal in the face of adversity. Mental health specialists may be able to aid policymakers and other authorities in overcoming psychological difficulties connected to Covid-19.[7]

Coronavirus is said to have originated in a wet market in Wuhan, China, and has subsequently spread worldwide, causing many hospitalizations and fatalities [8]. People have been urged to keep a safe distance from others, wear a mask, and wash their hands often. The importance of community-wide face mask use in controlling the COVID-19 epidemic driven on by the SARS-CoV-2 coronavirus.[9] India is not an exception when it comes to the shutdown. Indians' worries are exacerbated by difficulties in the medical field, adding to their psychological suffering. India is not prepared for COVID-19 control.[10]

138 (71%) of the 195 students experienced higher stress and anxiety as a result of the COVID19 epidemic. In one study, several stressors were attributed for rising levels of tension, anxiety, and suicide ideation among students. Fear and concern about their own and loved ones' health (n=177, 91 percent indicated negative effects of the pandemic), as well as difficulties focusing (n=177), were all highlighted as negative effects of the outbreak. Sleep issues (n=168, 86%), fewer social contacts due to physical separation (167/195, 86%), and increased worry about academic success (n=159, 82%) were also mentioned.[4]

The majority of recent research on COVID-19's psychological impacts discussed depression and its impact on socioeconomic issues. Several studies have looked into mental health issues in epidemics, with the majority of them focusing on health care providers, patients, children, and the general public. [12] As several recent studies have pointed out, there is an essential need to study of the effect of the present epidemic on university or college students' psychological health and quality of life. [2-3, 13].

The COVID-19 outbreak has drawn attention to those who have been diagnosed with mental illness. Epidemics are known to enhance or generate additional stressors, such as anxiety and physical concern for self or dear ones activity and social contact restrictions due to quarantine, and severe and dramatic alterations in lifestyle. Virus infections and pandemics have received a lot of attention recently.[14]

During the lockdown, depression, anxiety, and worry were common among the Indian community. In addition to other attempts to halt the spread of COVID-19, the Indian government and mental health specialists must give special attention to residents' mental health. Large-scale study on a number of professions and populations, such as health care professionals and migrant workers, should be done. [6] Due to the long-term pandemic scenario and demanding measures such as lockdown and stay-at-home instructions, the COVID-19 pandemic had a detrimental impact on higher education. Our findings highlight the vital need of implementing strategies and preventative actions to address university students' mental health.[4]

CONCLUSION

A greater knowledge of the role of stress, depression, and anxiety among university students gained via this study, allowing for early intervention and improvement of overall mental health problems among university students.

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