The Psychological Impact of the Covid-19 Pandemic on College Students in Mumbai

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Abstract

A COVID-19 pandemic has been spreading all over the world since December 2019. The pandemic has brought not only the risk of death from infection but also unbearable psychological pressure. The COVID 19 pandemic has created a mental health crisis among college students all over the world due to lockdown restrictions, overwhelming numbers of COVID-19 cases, financial difficulty, etc. This mental health crisis has led to high degrees of fear, anxiety, and depression among college students.

The objective of this study was to estimate the psychological condition of college students during a pandemic and explore factors that prompt their anxiety. This cross-sectional web-based study was conducted using a Google Forms questionnaire. The Google Form included a questionnaire on GAD-7(7 - item Generalized Anxiety Disorder Scale) and those inquiring about the participant's basic information. Thus, both qualitative and quantitative analyses were performed in the study. It is suggested that the mental health of college students should be monitored during a pandemic. The estimates of the strengths of associations were demonstrated by the odds ratio (OR) with a 95% confidence interval (CI), which was used to evaluate the association.

Keywords: COVID-19, College students, pandemic, Psychological .

INTRODUCTION

Coronavirus disease (COVID-19) is an infectious disease caused by the SARS-CoV-2 virus. The novel coronavirus has spread very quickly all over the world, causing an outbreak of severe infectious pneumonia. The pandemic brought a risk of death and psychological pressure on people in the rest of the world. Due to the continuous spread of the pandemic, strict isolation measures and the starting of schools, colleges, and universities across the world were delayed is expected to influence the mental health of college students.

The 7-item Generalized Anxiety Disorder scale (GAD-7) is one of the most frequently used diagnostic self-report scales for screening, diagnosis, and severity assessment of anxiety disorder, which is the first self-reported questionnaire developed for primary care, to aid the diagnostic process of the specific disorder. The GAD-7 takes very little time to complete and is easy to score. GAD-7 is the most widely used measure of anxiety used in clinical practice and research due to its diagnostic reliability and efficiency. It can be useful for the assessment of the severity of anxiety disorder, diagnosis, and screening, as well as for post-traumatic stress disorder, social phobia, and panic disorder.

Methods of guiding students to regulate their emotions effectively and appropriately during

public health emergencies and avoid losses caused by crisis events have become an urgent problem for colleges and universities. Therefore, we investigated and analysed the mental health status of college students during the pandemic for the following purposes:

i. To evaluate the mental situation of college students during the pandemic.

ii. To provide a theoretical basis for psychological interventions with college students; and

iii. To provide a basis for the promulgation of national and governmental policies.

METHODOLOGY

The Generalised Anxiety Disorder Assessment (GAD-7) is a seven-item instrument that is used to measure or assess the severity of generalised anxiety disorder (GAD). A score of 10 or greater on the GAD-7 represents a reasonable cut point for identifying cases of GAD. Cut points of 5, 10, and 15 might be interpreted as representing mild, moderate, and severe levels of anxiety on the GAD-7. The Generalized Anxiety Disorder (GAD-7) questionnaire is a seven-item, self-report anxiety questionnaire designed to assess the patient's health status during the previous 2 weeks. This questionnaire called the GAD-7 screening tool can help you find out if you might have an anxiety disorder that needs treatment. It calculates how many common symptoms you have and based on your answers suggests where you might be on a scale, from mild to severe anxiety.

Score	Risk Level	Suggested Intervention
0-4	No to Low risk	None
5-9	Mild	Repeat on follow up
10-14	Moderate	Further evaluation required
15 -21	Severe	Adjust treatment plan.

I. Study population and sample: -

The target population comprised various students across different parts of India. The respondents in the target population were sampled by cluster sampling. We assessed the mental health of these students during the COVID-19 outbreak by using structured questionnaires. The questionnaires were anonymous to ensure the confidentiality and reliability of data.

II. Rating instruments: -

The study instrument comprised a structured questionnaire packet that inquired demographic information, including gender, region, place of residence settlement who diagnosed them, and source of parental income, among others. They were also inquired about their cognitions and preventive behaviors regarding COVID-19. Moreover, the participants responded to the 7-item Generalized Anxiety Disorder Scale (GAD-7). The questionnaires consisted of a total of 12 multiple questions, of which 7 of them were based on GAD-7, and the rest consisted of participant's basic information. GAD-7 includes seven items based on seven core symptoms and inquires the frequency with which respondents suffered from these symptoms. Respondents report their symptoms using a 4-item Likert rating scale ranging from 0 (not at all) to 3 (almost every day), such that the total score ranges from 0 to 21.

III. Data Analysis: -

The estimates of the strengths of associations were demonstrated by the odds ratio (OR) with a 95% confidence interval (CI), which was used to evaluate the association between COVID-19-related stressors, including economic and daily-life-related stressors, as well as stressors related to delays in academic activities, and anxiety levels. Odds ratios are used to compare the relative odds of the occurrence of the outcome of interest (e.g., disease or disorder), given exposure to the variable of interest (e.g., health characteristic, aspect of medical history). The 95% confidence level is most common, but other levels (such as 90% or 99%) are sometimes used. The confidence level represents the long-run frequency of confidence intervals that contain the true value of the parameter.

RESULT

I. Level of anxiety among college students during the pandemic

Table 1 Number of students with different anxiety levels

ANXIETY LEVEL	NUMBER	RATIO
Normal	31	31%
Mild	31	31%
Moderate	34	34%
Severe	4	4%

The table above shows how the mental health of college students was affected to varying degrees during the outbreak. Of the 100 college students, about 31% had no symptoms of anxiety, whereas the proportions of students with mild, moderate, and severe anxiety were 31%, 34%, and 4%, respectively.

Univariate analysis

Table 2 Univariate analysis of college student's anxiety about the pandemic

VARIABLES	TOTAL	ANXIETY LEVEL			
		NORMAL	MILD	MODERATE	SEVERE
GENDER					
Male	52	19	16	16	1
Female	48	12	15	18	3
PLACE OF RESIDENCE					
Urban	93	30	29	30	4
Rural-Urban	4	0	0	4	0
Rural	3	1	2	0	0
STEADY FAMILY INCOME					
Yes	85	25	26	30	4
No	15	6	5	4	0
LIVING WITH PARENTS					
Yes	85	25	28	28	4
No	15	6	3	6	0
RELATIVE OR ACQUAINTANCE GOT COVID-19					
Yes	65	14	21	26	4
No	35	17	10	8	0

The demographic and selected characteristics of the study population are shown in Table 2. Among the sample of 100 college students, approximately were 48 females responded. The respondents lived in various parts of India of which 3% lived in rural areas and most of them lived in the urban areas. 85% lived with their parents, and 15% of the parents of students did not have a steady income. Most participants (65%) had relatives or acquaintances who were infected with COVID-19. Living with parents had a significant effect on anxiety, such that students living alone had decreased anxiety. Moreover, the population belonged to urban due to which the rate of anxiety is more compared to rural-urban and rural areas.

II. Ordinal regression analysis

Table 3 Ordinal logistic regression analysis of factors influencing college student's anxiety

FACTORS	NUMBER	STD.ERROR(SE)	ODDS RATIO(OR)	OR(95% CI)
PLACE OF RESIDENCE				
Urban	**93**	**1.1**	**0.35**	**(0.04, 3.04)**
Rural-Urban	**4**	**-**	**-**	**-**
Rural	**3**	**1.24**	**0.9**	**(0.08, 10.26)**
STEADY FAMILY INCOME				
Yes	**85**	**0.57**	**1.6**	**(0.52, 4.97)**
No	**15**	**0.57**	**0.63**	**(0.2, 1.94)**

LIVING WITH PARENTS				
Yes	85	0.57	1.6	(0.52, 4.97)
No	15	0.57	0.63	(0.2, 1.94)
RELATIVE OR ACQUAINTANCE GOT COVID-19				
Yes	65	0.45	3.44	(1.42, 8.36)
No	35	0.45	0.29	(0.12, 0.71)

Results of ordinal multivariate analysis of factors associated with anxiety during the COVID-19 crisis are presented in Table 3. The ordered logistic regression analysis included significant factors from the univariate analysis. The results indicated that living in urban areas, in contrast to rural areas, was a protective factor against anxiety experienced by the participants (OR = 0.35, 95% CI = 0.04 – 3.04). The stability of students' family income (OR = 1.6, 95% CI = 0.52 – 4.97) and living with parents (OR = 1.6, 95% CI = 0.52 – 4.97) were not protective factors against anxiety. However, having a relative or an acquaintance infected with COVID-19 was a risk factor for anxiety (OR = 3.44, 95% CI = 1.42 – 8.36).

Conclusion

Studies have suggested that public health emergencies can have many psychological effects on college students, which can be expressed as anxiety, fear, and worry, among others. The main goal of this study was to evaluate the psychological condition of college students during a pandemic and explore factors influencing their anxiety. This survey indicated that 69% of college students were afflicted with experienced anxiety because of the COVID-19 outbreak. College students' anxiety about COVID-19 might have been related to the effect of the virus on their studies and future employment. On the other hand, the students' anxiety may have been caused by the gradually increasing distances between people resulting from the quarantine. It is known if anxiety disorders are more likely to occur and worsen in the absence of interpersonal communication. On the other hand, the students' anxiety may have been caused by the gradually increasing distances between people resulting from the quarantine.

The results of this study indicated college students' anxiety regarding the pandemic was associated with their place of residence, source of parental income, whether living with parents and whether a relative or an acquaintance was infected with COVID-19. This difference indicates that male and female students experienced similar stresses and negative emotions because of the pandemic. Multivariate Logistic regression analysis suggested that living in urban areas, in contrast to rural areas, was conducive to reducing the anxiety of college students. The stability of family income was also a significant factor in students' experienced anxiety during the COVID-19 crisis, which could be explained by increased psychological and economic pressure. About 69% of college students have experienced anxiety because of this COVID-19 outbreak. Living in urban areas, living with parents, having a steady family income were protective factors for college students against experienced anxiety during the COVID-19 outbreak. However, having a relative or an acquaintance infected with COVID-19 was an independent risk factor for experienced anxiety.

The mental health of college students is significantly affected when faced with public health emergencies, and they require the attention, help, and support of society, families, and colleges. It is suggested that the government and schools should collaborate to resolve this problem to provide high-quality, timely crisis-oriented psychological services to college students.

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