

Prevalence of Depression in College Students During Covid-19 Pandemic

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Abstract

The outbreak of Covid-19 has caused major amount of suffering around the globe. Along with the physical symptoms in affected cases, it has severely spoilt the mental health of general public. College students too are facing multiple challenges in the stir of this COVID-19 outbreak. The present research is an attempt to assess the prevalence of depression among students residing in Nagpur region. A total 433 students responded to the online 9-item questionnaire (PHQ 9) based survey. Our survey showed that 96% of college students were affected with varied levels (minimal to severe) of depression resulting from the COVID-19 pandemic. Of these, about 9% experienced severe depression, about 13% experienced moderately severe depression, about 21% experienced moderate depression, about 29% experienced mild depression and about 23% experienced minimal depression. It is suggested that a timely concern should be given to students' psychological health as they are flagbearers of country's success and future.

Keywords: Covid-19, questionnaire, psychological health, Depression, mental burden.

Introduction

Covid-19 believed to be originated from Wuhan, China has spread worldwide, with high mortality rate.¹ At present, the situation has turned troublesome as medicine or vaccines are yet to be available for Covid-19.² In order to restrain the spread of the virus a lockdown has been imposed in many provinces worldwide.³ Residents have been strictly advised to obey the instructions of maintaining physical distance, using hand sanitizers and mask.⁴ As a result along with a risk to life, mental burden has also increased.⁵

India has similar scenario, when it comes to these strains of lockdown.⁶ Studies have shown increased

mental burden in the form of fear, anxiety, stress and depression in the times of epidemic⁸ and COVID 19 being a pandemic may definitely have a larger impact. Thus along with evident physical symptoms, mental health has also been affected. Stress may be put into words as an emotional feeling raising from any occurrence that seems to be hazardous to our daily life or routine.⁹ On the other side of the coin, anxiety is the fear of the untold¹⁰ whereas lack of concern in daily activities is considered as Depression. It is inferred that people fronting a pandemic without a vaccination or assured drug would have anxiety and psychological affection. Evidently, during pandemics such as SARS mental health issues (stress, depression, and anxiety) had raised.¹¹ Moreover, the World Health Organization has also delivered certain guidelines regarding psychological concern that may ascend during this Covid-19 pandemic.³ In India, the present lockdown has affected people with regards to their gender, profession, physical health, socioeconomic status and their place of residence³ Various reports of people emptying malls and supermarkets and panic purchases indicates anxiety in times of this crisis.¹²

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Methodology

The study was conducted on students in various colleges across the Nagpur region. Students from various courses viz. Engineering, Medical Sciences, Arts and Commerce, were invited to take part in the study. The survey was conducted by creating and circulating a Google form questionnaire link on various online stages. The respondents were sampled by virtual snowball sampling technique. The survey took approximately 5-10 minutes to complete and remained open for 8 days. The questionnaire was kept anonymous, thus ensuring the privacy and reliability of the information.

Total 433 participants completing the online questionnaire were incorporated in the study. By clicking on the link provided, the participants were first informed about the nature, purpose and confidentiality of survey. After approving the consent to participate in the survey, they were directed to the next page of the survey. The first section of the survey comprised of the demographic data (Name, Age, and Gender) and name of college and course.

The second section of the survey consisted of Patient Health Questionnaire 9 (PHQ-9). The Patient Health Questionnaire (PHQ) is a tool widely used to diagnose depression and other mental disorders. PHQ-9 consist of the actual nine items or symptoms which forms the basis for DSM-IV depressive disorders diagnosis.¹³ It is a self-administered questionnaire consisting of total 9 items that enquired the frequency of symptoms experienced by the participant during the previous 2 weeks. Respondents reported their symptoms as 0- Not at all, 1-Several days, 2-More than half the days, 3- Nearly every day. The total score ranged from 0 to 27 points. Among adults, PHQ-9 score have been used for grading the severity for depression as: a score 1-4: Minimal depression, 5-9: Mild depression, 10-14: Moderate depression, 15-19: moderately severe depression, 20-27: severe depression. In adult population, PHQ-9 is found to have high sensitivity (73%) and high specificity (98%) in diagnosing major depression. Also, The PHQ-9 is a dual-use instrument that, with its 9 items, can diagnose a depressive disorder and also grade its severity.¹⁴

Results

A total of 433 responses were received throughout the study duration through the online questionnaire survey.

Table 1: Demographic data of the students

| Mean age of students (in years) | Male participants | Female Participants |
|---------------------------------|-------------------|---------------------|
| 20 ± 2 | 121 | 242 |

The above table shows the age gender distribution across the study population. The mean age of participants was 18–22 years. Among the 433 students, 121 were male and 242 were female.

Table 2: Distribution of severity grade of depression according to PHQ 9

| Depression Severity grade | Total Number of Students |
|--------------------------------------|--------------------------|
| No depression (0) | 17 |
| Minimal depression (1-4) | 102 |
| Mild depression (5-9) | 127 |
| Moderate depression(10-14) | 90 |
| Moderately severe depression (15-19) | 58 |
| Severe depression (20-27) | 39 |

The above table shows that 17 (4%) students were found to have no depression, 102 (24%) had minimal depression, 127 (29%) were categorised as having mild depression, 90 (21%) students have moderate depression, 58 (13%) had moderately severe depression and 39 (9%) had severe depression.

Table 3: Distribution of students with severe depression among different courses.

| Name of course | Number of students with severe depression | Percentage of students with severe depression |
|-------------------|---|---|
| Engineering | 24 | 9.4 % |
| Medical Sciences | 11 | 9.8 % |
| Arts and Commerce | 4 | 6% |

The above table shows that approximately 9% of the engineering students, approximately 10% of the medical sciences students and 6% of arts and sciences students were suffering from severe depression when assessed on PHQ 9.

Table 4: Percentage of severe depression among male and female students.

| Gender | Percentage of students with severe depression |
|--------|---|
| Male | 9.04 % |
| Female | 9.09 % |

The above table shows that 9.04% of male students and 9.09% of female students suffered from severe depression when assessed on PHQ 9

Discussion

The present research intended to inspect the levels of psychological suffering in the form of depression in college students during this pandemic. Depression is one of the most prevalent diseases worldwide and a chief factor in problems of mental health¹⁵ Researchers suggest that global health emergencies can have many psychological effects in the form of mental distress on college students, expressed in the form of anxiety, fear, worry and depression ¹⁶An Indian study showed that about 33.2% respondents of the online survey had significant psychological impact regarding COVID-19.¹⁵

Our survey showed that 96% of college students were suffering from depression because of the corona virus outbreak. of the total students, about 9% experienced severe depression, about 13% experienced moderately severe depression, about 21% experienced moderate depression, about 29% experienced mild depression and about 23% experienced minimal depression. In our study we also found that medical college students were slightly more depressed (psychologically distressed) as compared to engineering college students. Our findings are in line with various other studies showing similar results. A study done to compare psychological strain, depression and anxiety among medical and engineering students showed that overall prevalence of stress, anxiety & depression was higher among medical college students in comparison with engineering college students.¹⁷ Also females were found to be more severely depressed as compared to males. A number of studies linking university students, stress, and gender ¹⁸⁻¹⁹ noted that female students had higher levels of depression than male students ²⁰⁻²¹ A study done by Anbumalar C showing gender differences in perceived stress level revealed females reporting higher feeling of anxiety and depression as compared to males.²²⁻²⁵

Also Cornine et al in their study have stated that

depression among college students during this pandemic might be in relation with the effect of corona virus on studies and uncertainty of future jobs or employment.^{16,26} Unavailability of educational resources such as online network, cell phones and laptops may also lead to stress and anxiety. In addition, owing to technological issues online learning may be troublesome.¹⁶ Getting acquainted with fluent use of them may require some time as well, leading to unconscious fear and stress. A recent study exploring the blow of COVID 19 on undergraduate education and welfare showed that approximately one fourth of their samples reported experiencing psychological distress, certainly correlating with raised apprehension about academic interruptions and delays, economic out turn and aftermath of the pandemic. ¹⁶

In addition, a rise of psychiatric symptoms and of mental health problems is expected in the general population.²⁷ Common responses representing eminent risk factors for several mental disorders particularly, frustration, loneliness, and worries about the future are evident.²⁸ Hawryluck et al. studied 129 quarantined persons during previous epidemic revealing high prevalence of psychological distress. Symptoms of depression were found in 31.2% study population. Longer duration of quarantine was more associated with more symptoms²⁹

Also the detrimental impact of quarantine and physical distancing on the mental health has been studied in the current pandemic. Qiu et al. in their study found that slightly more than one third of the study population experienced psychological distress, particularly women and individuals aged between 18 and 30 years. The same could be one of the reasons of students' anxiety & depression. It has been identified that the absence of interpersonal communication may trigger and worsen anxiety disorders.

Loneliness and mental health are evidently associated the strongest association being with depression. Adding to the straight effects of imposed separation and quarantine, loneliness as an unintentional consequence of outbreak has become troublesome for youth. Cutting off from others and feeling debarred may result in affective depression.

Furthermore, some previous studies have shown, not living with parents or living away from parents is linked with emotional and psychological distress. Due

to lockdown many students could not reach their native places and had to live away from their family leading to psychological stress. Friends or relatives being diseased with corona virusis considered as an independent predisposing factor of anxiety in collegiate, which might be in relation to the soaring infectiousness of the new coronavirus pneumonia

Additionally, the financial stability of family may also be a notable factor of psychological affection during this crisis. Some studies have indicated that the financial system of the country and residents will be significantly swayed in addition to the health crisis. Because of the spread of the virus and subsequent lockdown, some families may have lost their job or employment, and students might be worried about paying their coaching charges.¹⁶

Conclusion

COVID-19 crisis has given rise to a lot of ambiguity in the students' lives and its conveying effects will continue affecting college students' mental health and wellbeing profoundly. Many studies have shown that there are significant adverse effect of epidemics and pandemics on the psychological health of collegiate. The main aim of our survey was to explore levels of depression in the college students of Nagpur region. About 9% college students are suffering from severe depression because of this COVID-19 outbreak. The research outcomes direct that students need superior attention because of the higher psychological distress. As students represent tomorrow's future, it is recommended that the college authorities and parents should team up to solve this problem in order to provide finest psychological services to college students.

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