

Level of Anxiety among Medical Students during COVID-19 Pandemic

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ABSTRACT

Background: The general atmosphere of the medical college is frequently seen as being extremely stressful; as a result, medical students' academic results suffer, as well as their physical and psychological health. The purpose of this study was to evaluate medical students' levels of anxiety about their future careers.

Objectives: To exploring the level of anxiety among medical students during COVID-19 Pandemic

Methods: It was a descriptive quantitative cross-sectional research. After receiving verbal approval from each student at the Fatima Jinnah Medical University in Lahore, the participants enrolled. The data was gathered using a pre-designed questionnaire. A VAS score was employed to assess anxiety levels. SPSS 23 was used to analyze data. To get the desired findings, a statistical test like the chi-square test was used, with a p-value of 0.05 being considered statistically significant.

Results: The results showed that the mean age student was 20.33± 1.49 years with range from 19-27 years of 165 female medical students were enrolled. Maximum strength of 3rd professional year as 70(42.42%), students were asked to respond to their own self-perceived level of anxiety by using VAS scale of 0 to 100 (mild, moderate and severe) and 84(50.91%) students' shows severe level of anxiety. The factor contributing anxiety during COVID-19 explored and faced fear about future career 127(76.97%). Students observed that it took great effort to understand online lectures 108(65.45%) and faced the problem of recalling the memorized online 112(67.88%) as insignificant p-value.

Conclusion: The COVID-19 epidemic did not seem to enhance the general degree of anxiety among medical students, but instead, they were more concerned about their studies, exams, and especially their future career.

Keywords: Visual Analogue Scale, Exam Anxiety, Anxiety.

INTRODUCTION

The COVID-19 epidemic and the unpredictability of its spread have raised significant concerns and anxiety around the globe. Additionally, social distancing, quarantine, and lockdown policies put in place by governments to stop the virus spread have disrupted business, employment, and education. These disturbances have had a variety of effects, including a rapid increase in mental health issues, particularly among university students, such as anxiety, depression, stress, sleep problems, and drug use.¹ Medical and dental students are particularly vulnerable groups psychologically during these unexpected times due to the already intensely competitive nature of their training, academic pressure, exposure to patients in clinical settings, financial constraints, and lack of sleep, which may already contribute to psychological problems associated with stress and anxiety.² Additionally, due to their increased risk of viral contact during clinical training, healthcare students are thought to be at a higher risk of infection during epidemic outbreaks. Due to their concern of spreading the infection to their family and loved ones, medical students have reported feeling more anxious than non-medical students during prior disease outbreaks.³

All Pakistani institutions and universities moved towards online learning in March 2020. This included clinical training and clerkships for both medical and dentistry students. There has been much global research on the psychological effects of this shift for both medical students and university students.³

Medical students' psychological distress and anxieties during the COVID-19 pandemic, as well as how much they thought they understood about the disease and how they generally acted, performed, and behaved during the epidemic, all had an impact. It has been investigated how students perceive the safety precautions in place and the efficiency of educational strategies such using online learning to lower anxiety levels.³⁻⁴

Global public health difficulties have been brought on by the pandemic's quick spread and the associated mortality rate, as well as by the stress that individuals have experienced as a result of the circumstance. In terms of medical students, COVID-19 has led to problems such a shortage of medical supplies, high patient death rates, and mental and physical stress. The rapid rise in the

number of suspected and confirmed positive cases, the lack of PPE supplies, the excessive workloads, the extensive media coverage of the pandemic, the perception of inadequate managerial success, and the elevated risk of getting sick and infecting one's own family have all contributed to psychological distress among medical students in their final year.⁵

Due to the widespread fear about the COVID-19, people are subject to a lot of restrictions that negatively impact their mental health. The Pakistani population has not recently been impacted by such restrictions on illness. Due to this, research on the general population's mental health during pandemics like COVID-19 is still in its early stages, and little is known about anxiety during the COVID-19 pandemic. This study sought to determine the level of anxiety experienced by medical students during the COVID-19 pandemic. The findings will strengthen methods for containing infectious disease outbreaks and pandemics in the future and advance our understanding of the psychological effects of being exposed to an epidemic of an infectious disease that is fast spreading and life-threatening.

It is crucial to take into account the pandemic's psychological and physical effects on medical students. Health workers may suffer if psychological reactions to pandemic-related anxieties are not evaluated and treated.⁶

METHODOLOGY

It was a descriptive quantitative cross-sectional research. A questionnaire was used to gather the data from 23 October to 30 November 2020 on a total of 165 female participants from all professional years at the Fatima Jinnah Medical University, Lahore. SPSS 23 was used to analyze data. To get the needed results, statistical tests like the Independent t-test and the chi-square test were used.

RESULTS

The students' age, weight, BMI, gender, marital status, and professional year of study are among the demographic and baseline data. The findings revealed that there were 165 female medical students enrolled, with a mean age of 20.33 ± 1.49 years and a range of 19–27 years. 149(90.30%) unmarried students of

different professional years registered and maximum strength of 3rd professional year as 70(42.42%). More than one third of medical student belong of urban area as 142(86.07%) (Table-1)

Students were asked to respond to their own self-perceived level of anxiety on 1 scale of 0 to 100 (mild, moderate and severe), 59(35.76%) of students show little level during COVID-19 and 22(13.33%) and 84(50.91%) students' shows moderate and severe level of anxiety respectively. (Table-2)

The results indicate that 69(41.82%) did exercise and study regularly 112(67.88%), faced fear about future career 127(76.97%). Students observed that it took great effort to understand online lectures 108(65.45%) and faced the problem of recalling the memorized online 112(67.88%). (Table 3).

Table 1: Characteristics of the participants (n=165)

Variables	Frequency	Percentage
Age Group (years)	20.33 ± 1.49 (Age Rang 19-27years)	
Weight (kg)	65.60 ± 11.91	
BMI (kg/m ²)	22.50 ± 3.05	
Gender	Female	165
Marital Status	Unmarried	149
	Married	16
Professional	2 nd Year	40
	3 rd Year	70
	4 th Year	55
	Rural area	23
Place of residence	Urban	142

Table 2: Level of Anxiety among Medical Students during COVID-19

Level of Anxiety	Number	Percentage
Mild Anxiety(5-44)	59	35.76
Moderate Anxiety (45-74)	22	13.33
Severe Anxiety (75-100)	84	50.91
Total	165	100

Table 3: Descriptive statistics of VAS anxiety level with respect to Factors contributing to anxiety

Anxiety Factors	n(%)	p-value
Do exercise regularly		
Yes	69(41.82%)	0.003
No	96(58.18%)	
Study on regular basis		
Yes	112(67.88%)	0.476
No	53(32.12%)	
Face fear about future career		
Yes	127(76.97%)	0.876
No	38(23.03%)	
It take great effort to understand online lectures		
Yes	108(65.45%)	0.231
No	57(34.55%)	
Face the problem of recalling the memorized online material		
Yes	112(67.88%)	0.168
No	53(32.12%)	

DISCUSSION

The impact of COVID-19 on the globe was seen to be considerable, and it contributed to stress, anxiety, and depression in particular since the disease's prognosis was unclear and because it lacked identifying signs and symptoms from other diseases. A healthy lifestyle has been interrupted by changes in social norms, lockdown restrictions, and educational setbacks. Khan et al, (2010) Health care professionals, who are on the front lines of combat, were more vulnerable to contracting COVID-19 due to the disease high contagiousness and an increase in the number of cases that were recorded. Increased work demands and the concern about contracting an infection may make individuals more stressed.

Under normal conditions, medical students are more prevalent than the overall population to experience anxiety.⁹ There haven't been any reports yet on how a crisis in health care like the

COVID-19 situation may affect this vulnerable group. In the Wuhan region of China, Lai et al. reported on the mental health effects of healthcare workers exposed to the COVID-19 issue.¹⁰ They discovered that feelings of anxiety (50.4 %) and depression were quite common (44.6 %). They also found that all indices of mental health outcomes had severe levels among nurses, women, frontline workers, and people employed in Wuhan, China.

The data for the current study came from Fatima Jinnah Medical University in Lahore and was cross-sectional, quantitative, and descriptive. Demographic data such as age, weight, BMI, gender, marital status, and academic year was recorded. The findings showed that the mean age of the student was 20.33± 1.49 years with range from 19-27 years. In our data 165 females medical students were enrolled. 149(90.30%) unmarried students of different professional years registered and maximum strength of 3rd professional year as 70(42.42%). More than one third of medical student belong of urban area as 142(86.07%)

Another study conducted by Junaid et. al (2022), they enrolled 504 medical students, the mean age of their participants was 25.66 ± 6.71 years.¹¹ According to our study, COVID-19 caused higher anxiety and depression in women than in men. This outcome was in line with other research that shown that during the pandemic, females were more likely to have psychological problems i.e., stress, anxiety, and depression.¹²

The majority of studies' findings showed that research participants were older than 22 years old, which was similar to our findings, where 39% (n=118/300) of study participants were between 21 and 23 years old¹³

The results of other research, such as Hashmat 2015, showed that 55% subjects in their study were females.¹⁴ On the other hand, Khademian 2021 study results, which included 65.1 % (71/109) of the participants, confirmed the findings of the researchers mentioned above¹⁵.

Another research by Ans et al, 2012 sought to find the incidence of anxiety among Pakistani medical college students as well as the risk factors associated with these disorders. The maximum anxiety level was 100, with a mean anxiety level 62.21 ±23.01 on the VAS (Visual Analogue Scale)¹⁶.

CONCLUSION

Students studying medicine don't seem to be feeling any more anxious overall as a result of the COVID-19 epidemic. We suggest that these elements, along with a high level of resistance and effective coping mechanisms, a reduction in the academic load, and a higher level of family support, may be related to an earlier or broader awareness of the virus.

Furthermore, the protective effect that awareness of COVID-19 has on the emergence of anxiety, as previously observed in medical staff, highlights the significance of open information sharing during health emergencies.

Recommendation: This study offers significant information on the early responses and stress levels of university students across Pakistan during the COVID-19 outbreak. Among the event of the COVID-19 pandemic or any other future public health disaster, the findings of our study can be used to encourage the development of effective screening techniques and therapies aimed at promoting psychological resilience in medical students.

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