

Psychological Status of Medical Post Graduates During Covid19 in Northern India: A Questionnaire Survey

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ABSTRACT:

Aim: The aim of the study was to evaluate knowledge, attitude and practice of medical students towards the pandemic and to assess its psychological impact on them to provide future guidance.COVID-19 pandemic has resulted in a strong impact on students' wellbeing, with associated uncertainty about the future. We conducted a cross-sectional survey to assess the psychological effects of COVID-19 on the medical students.

Methods: A cross-sectional, questionnaire-based study was conducted via a web-based survey from May 07,2020 till May17 2020 among final year medical and physiotherapy students. medical students. The 20-questions survey questionnaire was based on rating-scale items to focus on psychological symptoms, institutional preparedness for such crisis and confidence in becoming a future doctor. Descriptive statistics were calculated using Multivariate regression analysis.

Results:Majority of participants(n=1853/2771,66.9%)were female.Despite timely closure of institutes,delay in the start of the online teaching was significantly correlated with the depressive symptoms.A significant percentage of student (n=1694,61.1%)wanted a delay in exit exams due to intimidation.A similar portions of students also lost confidence to be competent doctor in future which was positively associated with male gender.

Conclusion: Our study shows that COVID-19 pandemic has brought significant psychological influence on the medical students. Despite a stressful crisis, medical students are still willing to serve the community. In addition to supporting their emotions and psychological wellbeing, stress counselling, and transforming current medical curricula is crucial to pursue ceaseless medical education and to become a safe future

Key words- Pandemic, stress ,emotions, psychological

INTRODUCTION

Coronavirus disease 2019 (COVID-19) is an infectious acute respiratory disease caused by a novel coronavirus named SARS-CoV-2 were first reported by officials in Wuhan city, China, in December 2019. Retrospective investigations by Chinese authorities have identified human cases with onset of symptoms in early December 2019. On 11th March, the WHO announced this disease as a global pandemic.¹⁻⁴ As of 9th January, 2021, there have been more than 87.3 million confirmed cases of COVID-19 with more than 1.89 million deaths globally. While some of the earliest known cases had a link to a wholesale food market in Wuhan, some did not. Many of the initial patients were either stall owners, market employees, or regular visitors to this market. Environmental from this market in December 2019 tested positive for SARS-CoV-2, further suggested that the market in Wuhan City was the source of this outbreak or played a role in the initial amplification of the outbreak. The market was closed on 1 January 2020. Most people infected with the COVID-19 virus will experience mild to moderate respiratory illness and recover without requiring special treatment.⁵ The symptoms of COVID-19 infection include fever, cough, sore throat, fatigue and myalgia. In severe cases, it could lead to pneumonia, respiratory failure, cardiac arrest and death.⁶ However, it is estimated that 30% and up to 70% of patients in some studies could have the virus without showing symptoms of the disease,¹⁰⁻¹⁵ impacting on the control of the pandemic. Currently, preventive measures including social distancing, regular hand sanitization, regularly wiping surfaces, quarantining and the wearing face masks are the most effective methods to reducing the spread of the virus and its subsequent morbidity and mortality. Older people, and those with underlying medical problems like cardiovascular disease, diabetes, chronic respiratory disease, and cancer are more likely to develop serious illness.⁷ The best way to prevent and slow down transmission is to be well informed about the COVID-19 virus, the disease it causes and how it spreads. Protect yourself and others from infection by washing your hands or using an alcohol based rub frequently and not touching your face. The COVID-19 virus is transmitted from person-to-person by both symptomatic and asymptomatic persons through close contact (within 6 feet) spreads primarily through droplets of saliva or discharge from the nose when an infected person coughs or sneezes, so it's important that you also practice respiratory etiquette (for example, by coughing into a flexed elbow). Stress is a commonly experienced in response to a threat to adapt to psychological, intellectual or somatic wellbeing [Mental health issues among medical students are well recognized worldwide, with medical education accounting for one the most stressful of learning environments. Most researches relate study stress in medical students to confounding factors like medical institutes, academic obstacles, immense course workload, lack of time off, changes in course curriculum compounded by uncertainty about the state of the exam, lesser preparation time, irregular nutrition habits, sedentary lifestyle and higher parents' expectations. The coronavirus disease 2019 (COVID-19) pandemic—and the social distancing measures

that many countries have implemented—have caused disruptions to daily routines. Medical schools are known to be stressful environments for students and hence medical students have been believed to experience greater incidences of depression than others.⁸ Situation worsens when there is insufficient and inappropriate practical as well as economic support. While the majority of the medical students fall in the category of moderate stress, female students are found to have an excessive degree of stress. Sequentially, this can result in poor student wellbeing and later compromise in patient safety. During this public health emergency, where COVID-19 effected were filling up hospitals, giving priority to students' health led to

disruption in many regular and routine activities.⁹ As WHO implements useful and practical guidelines, like social distancing, many schools and universities suspended their educational activities and proceeded to an online setting. This obviously brought medical students at the point of the prevailing pressure and long-lasting metamorphosis in medical education and upturned the surge in anxiety.^{10,11} Simultaneously, as uncertainty continues among medical students, suspension in clinical exposure may cause harmful effect in their exam and future performance as a doctor.¹² Staying healthier is becoming a new aggravating factor of stress in medical students. Individuals' knowledge, attitude and practice towards preventive and precautionary measures of COVID-19 are essential to control the spread of the disease. Public awareness and following recommendations play an important part in managing such a large-scale crisis, which are affected largely by knowledge, attitudes, and practices (KAP). Medical students can act as reliable sources of information for the public in such a scenario. As we assumed that the long-term effects of COVID-19 on the medical students remain a riddle, we conducted this cross-sectional online study intending to assess the psychological effects of COVID-19 pandemic on medical students.

MATERIAL AND METHODS:

We conducted a nationwide cross-sectional cohort study, as snapshot for 10 days from May 07, 2020. A 20-question survey form drafted using Google Survey form, for self-completion, was distributed using social media like WhatsApp, Facebook, and emails. All the questions in a survey were mandatory and were drafted by three consultants and three undergraduate medical students, including Professor of Surgery, with interest in Medical education. The questionnaire was developed, on rating-scales items, which focused on demographic details, psychological symptoms related with the closure of their institutes, institutional preparedness for such crisis, confidence in becoming future doctor, and developing symptoms of COVID-19. We enrolled a team of collaborators from throughout the country, volunteering to widely circulate the survey to collect the data from medical students of different, public and private sector, medical and dental colleges. All the medical and who were in the middle of their exit exams or awaiting results were excluded from the study.

RESULTS

There were a total of 2771 participants in this qualitative study, who responded to the online questionnaire. There were 1853 (66.9%) female while 918 (33.11%) male participants and most of the participants belonged to government-based medical institute (n = 1884 68.0%). Most of the participants were from Punjab province (n = 1745 63%), followed by Chandigarh (n = 997 36%), Ludhiana (n = 471 17%), Jalandhar (n = 257 9.3%), and Patiala (n = 11 0.4%). Most of the students were studying undergraduate medicine (n = 2596 93.6%), and the rest were studying undergraduate dentistry (n = 508, 18.3%). Most of the educational institutions (n = 2486, 93.4%) closed timely and appropriately during COVID-19 pandemic. A large proportion of the students (n = 508 18%) also displayed symptoms of COVID-19. Most of the students (n = 2401 86.6%) agree that closing down the institution was correct during COVID-19 pandemic; however, a significant proportion of them (n = 780 28%) felt that the institutions were not well prepared before the lockdown. (Table 1) The large proportion of the students displayed depressive symptoms. They felt isolated (n = 1798, 64.8%), experienced lack of enjoyment in daily activities (n = 988 35.6%), had problems with sleeping very frequently (n = 1215 43.8%), and were not hopeful about their future (n = 808, 29.2%) Following multivariate analysis, having

COVID-19 symptoms, studying in a private institution and delay in the start of the online training by the institution were the factors that were significantly and positively correlated with the depressive symptoms. Gender studying in a smaller province and studying in a physiotherapy program did not have any significant correlation with the depressive symptoms. Majority of the educational institutions (n = 2243, 80.9%) started online courses and education, however, a large proportion of the students (n = 1409, 50.8, %) thought that there was a delay by the institutions to start online classes and they (n = 1689, 60.9%) were not satisfied with the set-up of the online teaching. A fair proportion of the students felt bored or nervous on the closure of their institute (n = 711, 25.6% vs n = 650, 23.4% respectively). Sadness (n = 581, 20.9%) was also evident while some were annoyed (n = 386, 13.9%) with this decision of closure of the institute. Rest of the students either felt relaxed, calm or happy with such a decision.

DISCUSSION

Our study focused on both medical and physiotherapy institutes in India during times of COVID-19 pandemic.

Closure of institutes

As COVID-19 pandemic forced rapid transformation within societies, the educational system also faced challenges, noticeably medical institutions, throughout the world. In response to COVID-19 crisis, like the rest of the world, medical institutes in India also started to close down from the mid of March 2020 with little variation, aimed social distancing.¹³ This was the reflection of successful responses witnessed in the past to alleviate disease spread effectively. In our survey, although a minority of students claim that their institute did not close timely during COVID-19 crisis, most of these students were from private sector institutes. There is no data available to claim the effect of institutional closure on the control of transmission of COVID-19 and mental health outcomes. However, the majority of the students in our survey agreed that it was a good decision to close down their institute because of COVID-19 pandemic. A need to understand medical institutions closure on tomorrow's doctor is the utmost need of the time to avoid long-term iceberg effects.¹⁴

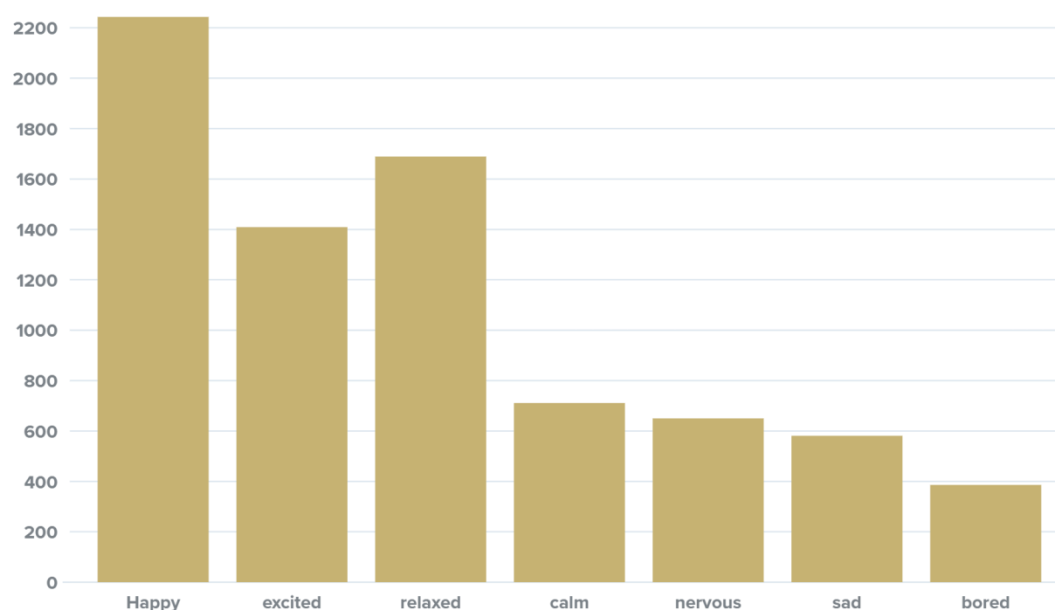
Psychological impact

Most literature has proven that depressive symptoms are more common in medical students as compared to the general population, even more, common in the female gender physically and mentally.¹⁵ As during any stress-related situation, COVID-19 has already brought significant stress crisis in the population. Our study also identified such stress-related symptoms in undergraduates, including nervousness and sadness. Such level of stress can bring a significant negative impact on resilience and strength of our future doctors to cope with crisis situations like a difficult patient and complicated surgery. Resilience training has shown more extensive benefits to improve performance during different interventions and can be incorporated in the undergraduate curriculum of medical and physiotherapy students.^{16,17} Depressive symptoms were commonly seen in those students who witnessed late start of their online classes. We also identified that depressive symptoms were more evident in students studying at the private institutes.¹⁸ It was also found that most of these students had COVID-19 symptoms as well. As mentioned in literature, about correlation between COVID-19 and psychological symptoms, this may be the answer to our results.¹⁹ (Figure 1)

Table 1: Demographics of participants.

GENDER	FEMALES-	MALES-
PARTICIPANTS	918 (34.1%)	1853 (65.9%)
STUDY GROUP	-	-
MEDICINE(MBBS)	823	1518
PHYSIOTHERAPY(BPT)	173	335
SECTOR	-	-
A. PUBLIC (N = 1884)	641	1243
B. PRIVATE (N = 1038)	402	636
LOCATION OF INSTITUTE	-	-
A. PUNJAB (N = 1745- 63%),	593	1151
B. CHANDIGARGH(N = 997-36%)	338	658
C. LUDHIANA(N = 471- 17%),	160	310
D JALANDHAR(N = 257- 9.3%)	87	169
E. PATIALA(N = 11- 0.4%)	4	7

Figure 1: CHART SHOWING DEPRESSIVE SYMPTOMS.



Future doctors

The final year during undergraduate studies is very demanding and more patient-centred. During COVID-19 related lock-down, at the times of uncertainty, closure of medical institutions cancelled all clinical activities tangled by lack of preparedness of some institutions [This brought many psychological impacts, including failure to focus on self-study and preparedness for final

year exit exams to become tomorrow's safe and competent doctors, leading to deterioration in self-confidence and self-dependence.¹⁶ This may lead to the fiasco in being ready to work at any place outside their parent country. Although stress related symptoms being more common in the female gender, our study also found that such a feeling of lack of confidence was more evident in male students. A recent survey conducted in 32 UK medical schools found that COVID-19 has significantly impacted confidence and willingness to work in a hospital. This can generally affect smooth change from student to doctor life.¹⁷

CONCLUSION

COVID-19 pandemic keeps transforming our life and health, many lessons are as yet to be understood. What will be the long-term effect is still a mystery, but it has brought significant physical and psychological changes in the life of a future doctor. Although in the middle of nowhere and during the peak times of stressful crisis, medical and physiotherapy students are still willing to serve the community. Supporting their emotions and wellbeing, by establishing a social support group, for example, is vital and crucial as they prepare for their exit exams. While the medical or student is expected to be resilient and irrepressible during stress filled situation, current curricula do not stress such scenarios. Proper grooming and training during the undergraduate period can result in a safe and secure future doctor with better patient outcomes in the future. During the current scenario, reviewing our policies is the utmost priority.\

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