

## Original Research Article

# Effect of COVID-19 pandemic on education and psychology of medical students in Himachal Pradesh (India)

Subhash Chander<sup>1</sup>, Arvind Kumar Dhiman<sup>2\*</sup>, Sanjay Kumar<sup>2</sup>, Subhash Chand Sharma<sup>1</sup>

<sup>1</sup>Department of General Medicine, <sup>2</sup>Department of Community Medicine, DRKGMC and Hospital, Hamirpur, Himachal Pradesh, India

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### \*Correspondence:

Dr. Arvind Kumar Dhiman,

E-mail: [dr.arvinddhiman77@gmail.com](mailto:dr.arvinddhiman77@gmail.com)

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## ABSTRACT

**Background:** WHO announced COVID-19 which is caused by SARS-CoV-2 as pandemic on 11 March 2020. In India first case of COVID-19 registered in Kerala on 29 January 2020 after that cases started to increase gradually. Government of India announced countrywide lockdown on 24 March 2020. All the academic institutes including medical colleges were closed till further orders. After forty days of strict lockdown the process of unlocking was started and medical students started to rejoin the college from the month of December 2020 onwards in a phased manner. The present study conducted on students studying in Dr. Radha Krishnan Government Medical College (DRKGMC) Hamirpur, Himachal Pradesh regarding effect of lockdown on education and psychology of medical students.

**Methods:** Study was conducted using a pretested structured questionnaire for data collection. Questionnaire was based on two components one was about the effect of COVID-19 pandemic on academics of students and second one about psychological effect on MBBS students.

**Results:** Most of students said that they were not satisfied with online classes and had fear that they will lose one year of MBBS. There was overuse of mobile phones. Maximum students were occupied with idea of contracting COVID-19 and they were also thinking that they should be get tested for COVID-19 even they had no symptoms of disease. Very less students had difficulty in falling asleep and fear of death due to COVID-19.

**Conclusions:** To defeat COVID-19 virus people have to follow COVID-19 appropriate behavior and vaccination.

**Keywords:** COVID-19, Students, Psychology, Medical education and lockdown

## INTRODUCTION

WHO announced COVID-19 as public health emergency of international concern which is caused by SARS-CoV-2 as pandemic on 11 March 2020. The infection was originated in Huanan seafood and animal market in Wuhan city of Hubei province of China.<sup>1</sup> In India first case of COVID-19 was registered in Kerala on 29 January 2020.<sup>2</sup> After that cases started to increase gradually each and every state of country. Being a new disease and news in social media about the mortality due to this disease in European countries panic was felt

everywhere. Government of India on dated 24 march announced countrywide lockdown.<sup>3</sup> Every state in India imposed lockdown in spite of their own case load. All the academic institutes including medical colleges were closed indefinitely. The strict lockdown continued for forty days in country, after this, the process of unlocking started and approximately after eight months the medical students started joining medical colleges in phased manner. The massive posts of the fake news over social sites (whatsapp, twitter, facebook) and media during lockdown has created chaos and stressful atmosphere for the students. Director medical education Himachal Pradesh gave directions to start online classes of medical

students during lockdown so that studies of students are not affected.

The impact of pandemic has been observed on students of every stream throughout the country. The present study was conducted involving MBBS students studying DRKGMC and hospital Hamirpur Himachal Pradesh. The college is located within Hamirpur town and caters to a population of approximately 482869 of district Hamirpur and surrounding districts also. Study was conducted to assess the impact of lockdown due to COVID-19 pandemic on education and psychology of MBBS students studying here.

## METHODS

A cross sectional study was conducted at DRKGMC and hospital Hamirpur, Himachal Pradesh involving second and third year MBBS students. First year MBBS students could not be included because they had joined late after first lockdown. The duration of study was 3 months w.e.f. 1 January 2021 to 31 March 2021. All 205 students who were present in class gave consent and included in study. Study was conducted using a pretested structured questionnaire for data collection. Questionnaire was based on two components one was about the effect of COVID-19 pandemic on academics of students and second one about psychological effect on MBBS students.

### Ethical approval

Ethical approval was obtained from institutional ethical committee constituted at DRKGMC, Hamirpur. Informed written consent was taken from all students willing to participate in study.

## Data collection

The hard copies of questionnaires were distributed to MBBS students in theory class. The filled up questionnaire collected from students at the end of class.

## Data analysis

Data was entered in Microsoft excel spread sheet. Frequencies and relative frequencies for categorical variables and means and standard deviation for continuous variables were calculated where needed using IBM SPSS\_v 22.0.

## RESULTS

All the students were between age group of 18 to 24 years. There were 129 males and 76 were females. Mean age of students was  $22 \pm 2.9$  years.

### Effect of COVID-19 pandemic on academics

Results are mentioned from Figure 1-3.

Ninety one percent of students said that online teaching was started in time but eighty seven percent students were not satisfied with online teaching (Figure 1 a and b). Hundred percent of students said that there was overuse of mobile phones during lockdown (Figure 2a). Eighty three percent of students had fear that they will lose one year of MBBS (Figure 2b). Fifty seven percent of medical students said that they did not find the time of study at home (Figure 3a). Seventy three percent students were not sure that they will be able to pass the exam this year especially practical examination (Figure 3b).

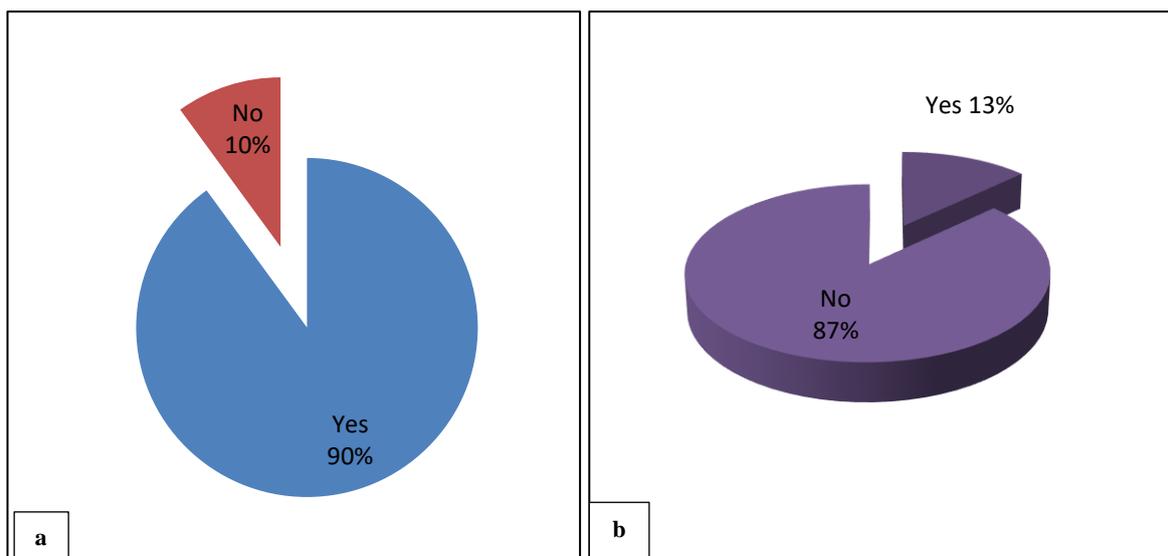


Figure 1: (a) Online teaching started on time; (b) satisfied with online classes.

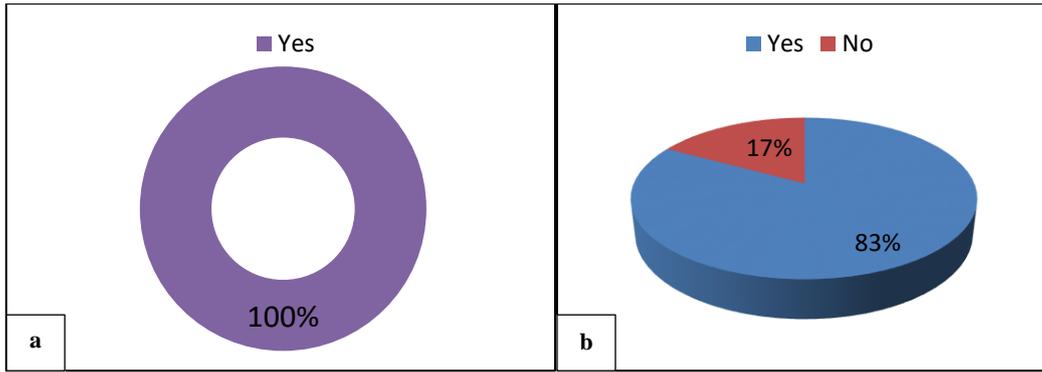


Figure 2: (a) Overuse of mobile phones during lockdown; (b) fear of losing one year of MBBS.

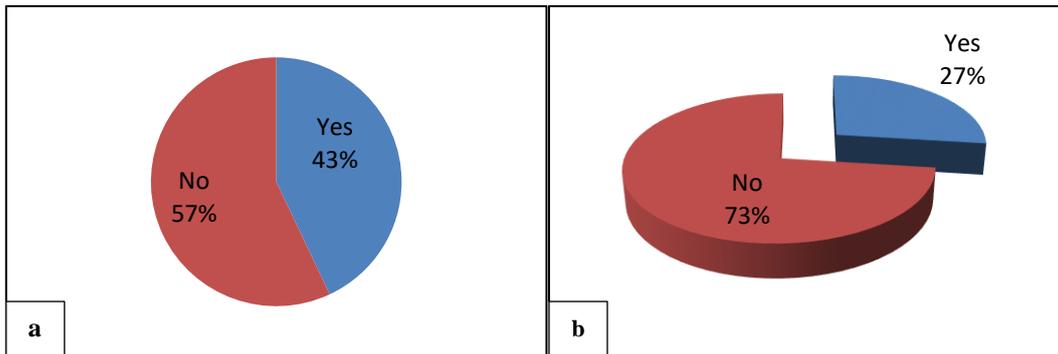


Figure 3: (a) Finding time for study at home; (b) confident to sit and pass concerned year exam.

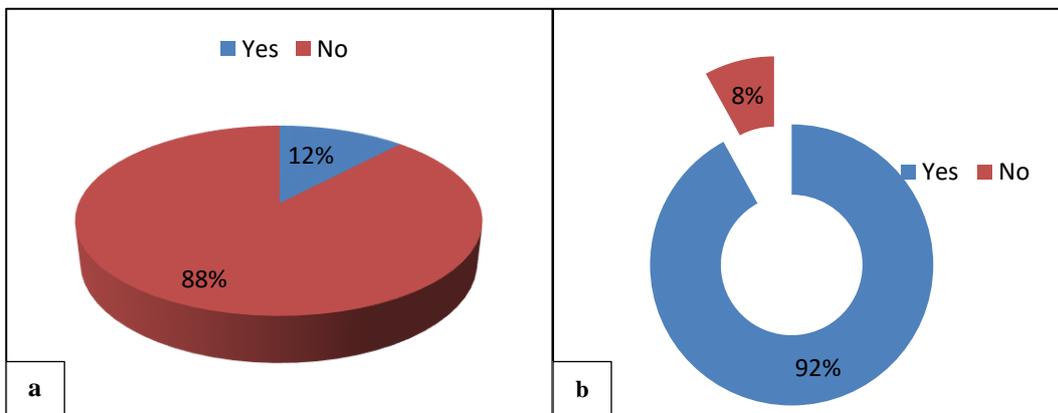


Figure 4: (a) Staying home was stressful; (b) behaviour of family was encouraging.

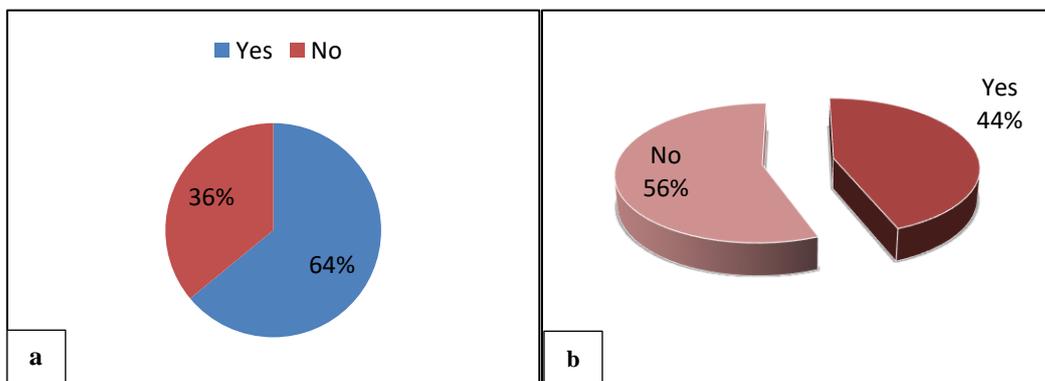


Figure 5: (a) Feeling down during home stay; (b) students were little angry and tired.

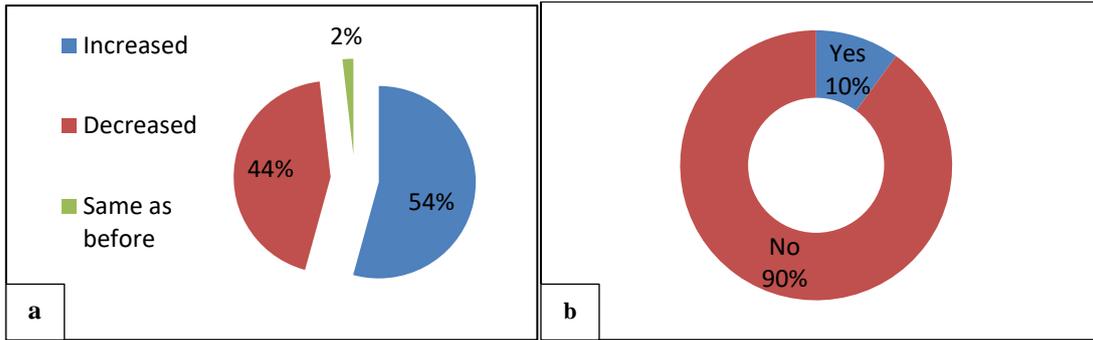


Figure 6: (a) Habit of taking food; (b) difficulty in falling asleep.

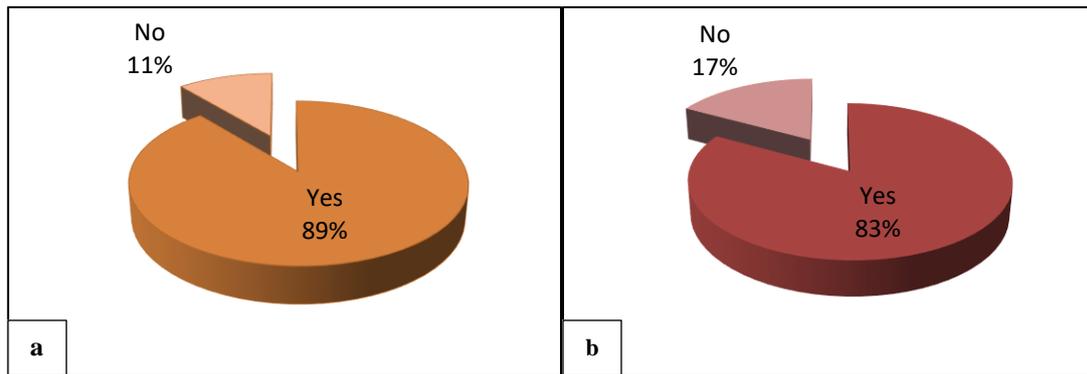


Figure 7: (a) Preoccupied with idea of contracting COVID-19; (b) repeatedly thinking of testing for COVID-19 despite having no symptoms.

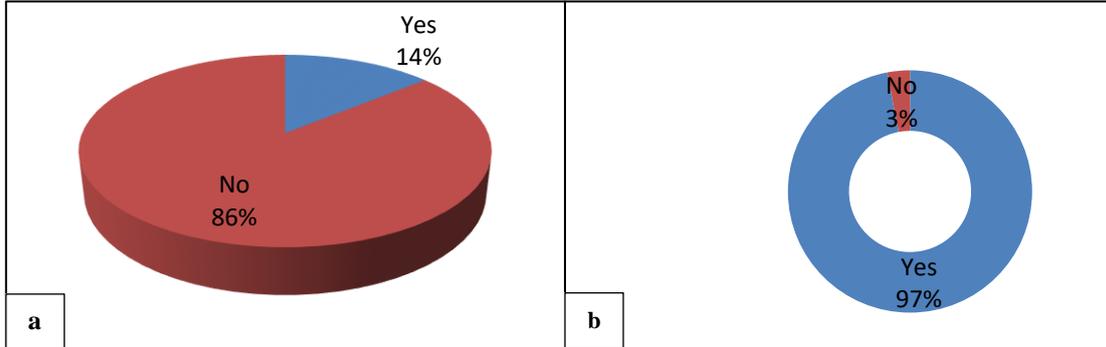


Figure 8: (a) Fear of death due to COVID-19; (b) feeling to commit suicide.

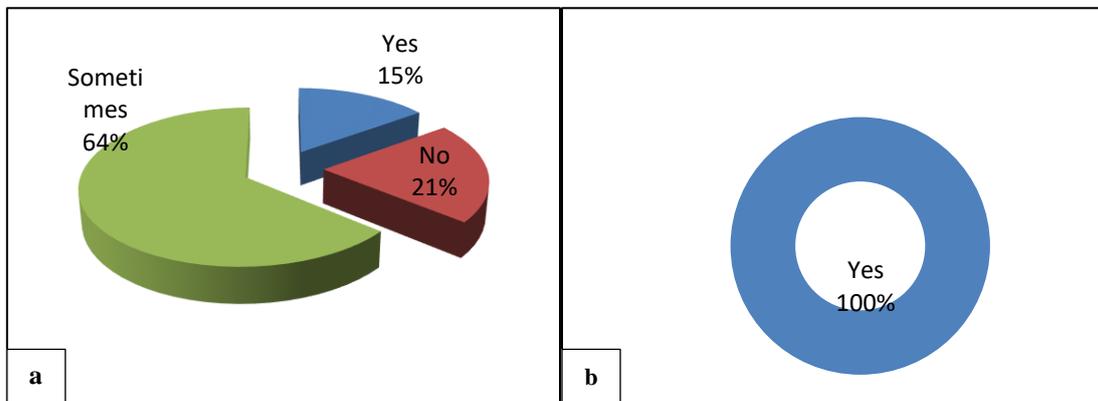


Figure 9: (a) Watching and reading news; (b) violators of COVID-19 appropriate behaviour should be punished.

### **Psychological effect due to pandemic**

The results about psychological impact due to COVID-19 pandemic on medical students are mentioned in Figure 4-9.

Fifty seven percent students said that their home stay was not stressful (Figure 4a). More over ninety two percent said that behavior of family was also encouraging towards them (Figure 4b). Thirty six percent of students were feeling down during home stay and forty four were also tired and little angry (Figure 5 a and b). Very less students had difficulty in falling asleep (Figure 6a). Only 10 percent of students had same habit of taking food as before. In other students the habit of taking food was either decreased or increased (Figure 6b). Maximum students were occupied with idea of contracting COVID-19 and they were also thinking that they should be get tested for COVID-19 even they had no symptoms of disease but very less students have fear of death due to COVID-19 (Figure 7 and 8a). Only three percent of students mentioned that they had also felt of suicide some times during lockdown (Figure 8b). Sixty four percent of students claimed that they now sometime used to read or watch news (Figure 9a). Beside this 100 percent of students were in the opinion that there should be punishment for COVID-19 appropriate behavior violators (Figure 9b).

### **DISCUSSION**

Since March 2020, medical educations in India and as well as in our state of Himachal Pradesh has experienced major changes as a consequence of the COVID-19 pandemic and nationwide lockdown. In order to prevent the spread of COVID-19 the important measures such as wearing mask, hand sanitization/hand washing and important one is social distancing are required at utmost. Social distancing has led to the closure of medical colleges and has compelled the situation of medical students to stay at home. Government waited for few weeks about the situation of COVID-19 and finally issued guidelines to conduct online classes.<sup>5</sup> As for as theory classes are concerned that could be done online but important component in medical education is practical/clinical postings which were missed during lockdown.

As per new competency-based medical education (CMBE) Indian medical students need training in clinical settings, practice with patients and make regular visits to outpatient clinics. Students who were studying in were not satisfied with online classes. It looked like one way communication. It had been observed that there are audio visual disturbances due to poor internet connectivity during online classes. Due to online classes students have begun to be relaxed and created the behaviour of malingering in them. More over sympathetic behaviour of higher medical authorities towards medical students due to lockdown have made them more complacent. During

present era youth was active in social media and use of mobile phones was more but now due to online classes the use of mobile phones have been doubled rather screen time of students have been increased leading to stress and eye problems.<sup>6</sup> Study done by Dhotre et al also showed same findings.<sup>7</sup> Students were worried about their studies and future they were thinking that they will lose one year of MBBS and if they sit in exam they will fail. It had been observed that physical mode was the best method for medical education.

The profile of virus, rate of mortality and recovery was not clear at initial stages. More over the news in news channels and videos and pictures which were being circulated in social media had created panic among medical students. As per our study some students had stopped to watch news channels due to this reason. Students were preoccupied with idea of contracting COVID-19 disease.<sup>8</sup> Even having no sign and symptoms students were having thoughts of being tested for COVID-19. Up to April 2021, 747 doctors died due to COVID-19 in India.<sup>9</sup> This situation also discouraged the young ones to join medical profession. Eating habit of students was not as before during lockdown. Students were feeling low and even some students were irritable suggesting psychological impact of pandemic on them. Habit of food intake was either increased or decreased which was also a sign of psychological stress. Renzo et al also showed the same finding in their study.<sup>10</sup> In study very less number of students had thought of suicide, since the number was less but if thought process of students had reached up to suicide then we can think about the psychological impact created by this pandemic. In Himachal Pradesh COVID-19 pandemic had increased the risk of psychiatric disorders, exacerbating suicidal behaviour. In Himachal, 218 persons ended their lives in the first three months of this year, an increase of over sixty per cent suicide cases as compared to the corresponding period last year.<sup>11</sup> In a study hundred percent of students said that violators of COVID-19 appropriate behaviour should be punished. The lockdown was not a long term solution. It was individual responsibility to adopt COVID-19 appropriate behaviour and vaccinate themselves against this disease.

### **Limitation**

Since study had been done in only one medical college so it did not represent all medical students studying in medical colleges of Himachal Pradesh.

### **CONCLUSION**

COVID-19 and lockdown imposed due to this pandemic has affected the studies of medical students. Medical education involves practical and clinics oriented study. Without practical and clinical posting it is not useful for students and society. Students staying at home during lockdown were worried about their studies and contracting COVID-19 virus by them or their family

members. If such epidemics continued then there is need to reschedule and make changes in medical education curriculum. There is also need of continuous counseling of medical students by psychiatrist so as to keep them mentally stable during this pandemic. To defeat COVID-19 virus people have to follow COVID-19 appropriate behavior and vaccination.

### Recommendations

Counseling of medical students by psychiatrist of medical college once in fifteen days to minimize stress of study and fear of COVID-19 among students. If in future there is lockdown the duration of online classes should be decreased so that screen time of students could be less. Teaching schedule can be made in such a way that the practical classes missed during lockdown could be covered. Faculty should show positive attitude towards students during this stressful atmosphere.

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*Conflict of interest: None declared*

*Ethical approval: The study was approved by the Institutional Ethics Committee*

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