

# Psychosocial Well Being among Undergraduate Medical Students during COVID-19 Pandemic

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**Abstract:** COVID-19 is a global concern affecting Higher Education Institutions (HEIs). This pandemic led to disruption of education, at all levels, whether primary or higher education Institutes. Studies have shown that the stress experienced by medical students is far greater than that experienced by other university students. Public health emergencies may affect the health, safety, and well-being of both individuals (causing, for example, insecurity, confusion, emotional isolation, and stigma) and communities (owing to economic loss, work and school closures, inadequate resources for medical response, and deficient distribution of necessities). These effects may translate into a range of emotional reactions (such as distress or psychiatric conditions), unhealthy behaviours (such as excessive substance use), and noncompliance with public health directives (such as home confinement and vaccination) in people who contract the disease and in the general population.<sup>1</sup> This cross-sectional study aimed to examine medical student's attitudes, anxiety, and overall mental being during the COVID-19 pandemic through questionnaire prepared by the authors which consisted of questions from various mental health scoring systems currently being used around the world.

**Keywords:** medicine, students, medical school, stress, anxiety, suicide, pressure, mental health, alcohol, suicide, peer pressure, pandemic, COVID-19, distress, lockdown, social media, smoking, sleeping, sleep

## 1. Methods

- 1) It was across sectional study using snowball sampling
- 2) A total of 257 Undergraduate Medical students of various medical schools of Uttarakhand voluntarily agreed to take part in this research.
- 3) Undergraduate Medical students of all the professional years were allowed to participate.
- 4) To maintain confidentiality, personal details, and potential identifiers of were not collected.
- 5) We used snowball sampling methodology to send the survey to potential participants. This method is non-probability sampling and entailed sending the survey link via WhatsApp, and social media to their peers their respective institute.
- 6) Data were collected on demographics, depression, and anxiety using validated tools, quality of life, and perceived stressors.
- 7) In some questions, students were also given the liberty to write in a sentence or two, if they wanted to discuss any other information pertaining to their well being.
- 8) All the Data was collected online via Google forms.
- 9) Questions were compiled from different questionnaires such as PERCIEVED STRESS QUESTIONNAIRE, PERCIEVED STRESS SCALE, PATIENT HEALTH QUESTIONNAIRE.

## 2. Introduction

A study conducted in communities affected by severe acute respiratory syndrome (SARS) in the early 2000s revealed that although community members, affected individuals, and health care workers were motivated to comply with quarantine to reduce the risk of infecting others and to protect the community's health, emotional distress tempted some to consider violating their orders.<sup>2</sup>

In the context of COVID-19, psychosocial assessment and monitoring should include queries about COVID-19 related psychosocial effects such as depression, anxiety, insomnia, increased substance use, decreased concentration span in

online classes, spending more time over the social media to name a few.

As for the medical students, the novel nature of SARS-CoV-2, inadequate testing, limited treatment options, below par working conditions of their seniors, extended workloads and gradual burnout and other emerging concerns are sources of stress and have the potential to overwhelm medical students.

Despite the potential seriousness and impact on the mental health related to the pandemic in the infected patients and the community at large, most medical professionals have received relatively little training in the delivery of mental health care in the face of such pandemics. Timely mental health care and mental healthcare training need to be developed and implemented as part of professional development activities [5] for the healthcare professional, present and the future.

Since there has been very limited research regarding this, we sought to investigate the prevalence and severity of mental health symptoms among medical students during COVID-19, as well as its impact on quality of life. Such data are needed to inform healthcare administrators and policymakers to rapidly develop and implement mental health interventions among medical students and to improve the quality of life in this pandemic.

## 3. Material and Methods

A structured survey questionnaire was designed in Google forms and made accessible online for self-administration.

An informed consent script briefly explaining the objective of the study was provided at the beginning of the survey.

Medical students who responded to the survey were assumed to have agreed to participate.

To maintain confidentiality, personal details, and potential identifiers were not collected.

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We used snowball sampling methodology to send the survey to potential participants. This method is non probability sampling and entailed sending the survey link via WhatsApp to their peers.

Data were collected on demographic characteristics, mental health symptoms, quality of life, and perceived stressors.

Demographic data collected included Undergraduate medical students, both Male and female, of first, second, third and final professional year of a single medical school only. Their current residence, whether rural or urban was also asked and whether they lived in a nuclear or joint family was also asked about.

Questions were compiled from different questionnaires such as PERCIEVED STRESS QUESTIONNAIRE, PERCIEVED STRESS SCALE, PATIENT HEALTH QUESTIONNAIRE.

The outcomes of interest were the severity of symptoms of depression and anxiety, quality of life, and perceived stressors.

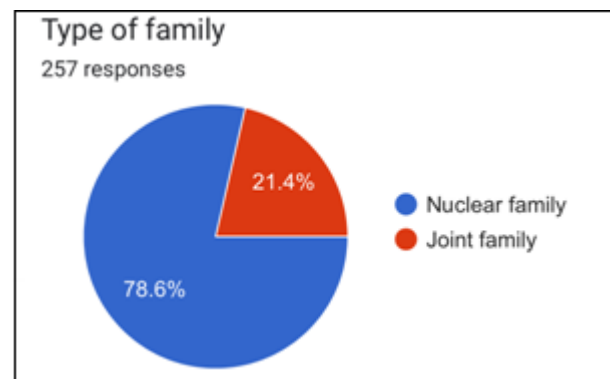
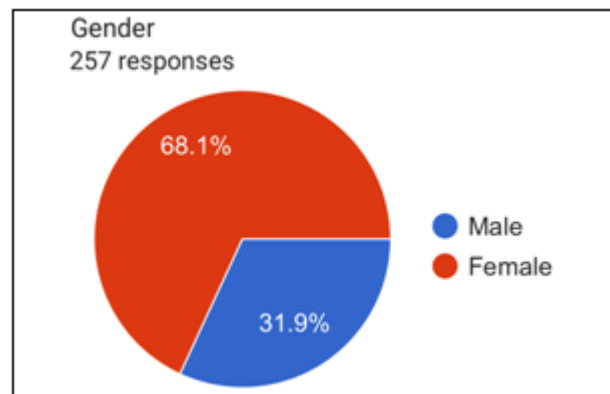
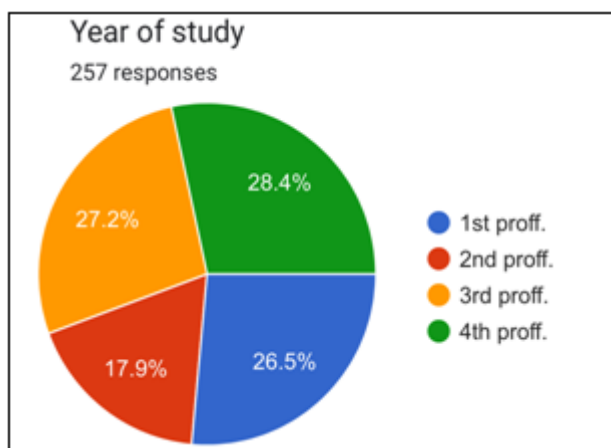
#### 4. Results

A total of 257 students of various medical colleges of Uttarakhand took part in this survey out of which 26.5% students were from first professional, 17.9% from second, 27.2% from third and 28.4% from final professional year respectively.

Out of 257 students, 68.1% students were male while 31.9% students were female

In the further survey of demography, 78.6% students belonged to a nuclear family while 21.4% belonged to a joint family

Further, 85.5% students lived in an urban setting during the pandemic while the rest in the rural setting

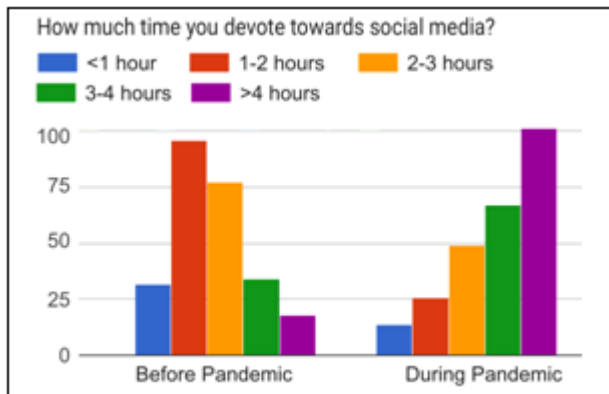


Comparing the time devoted by the medical students on social media before the pandemic and during the pandemic, it was found in the survey that majority spent 1-2 hours on social media before pandemic, followed by 2-3 hours followed by 3-4 hours. On the contrary, majority students spent more than 4 hours over social media followed by 3-4 hours during the pandemic.

Comparing the duration of sleep of medical students before and during the pandemic of 257 students, In the pre-pandemic phase, majority students had a sleep duration of 6-8 hours followed by 4-6 hours, followed by 8-10 hours per day. During the pandemic, majority of students had a sleep duration of 8-10 hours per day, followed by 6-8 hours per day, followed by students having sleep more than 10 hours per day.

Comparing the alcohol consumption among the medical students between pre-pandemic and during pandemic, though majority have marked that they don't indulge in alcohol, there has been a decrease in the consumption of alcohol among the students who use to consume it occasionally,

Comparing the consumption of cigarette smoking among the medical students between the pre-pandemic and during pandemic, there has been a slight decrease in the consumption of smoking while majority students never smoked.

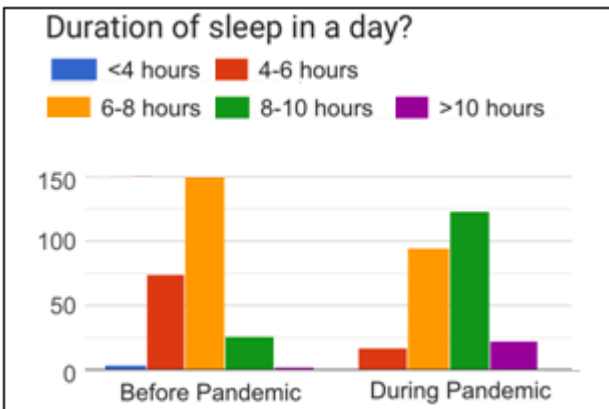


Out of 257 students, 71.6% students responded in positive that they had the feeling of being trapped during the pandemic while 28.4% responded in negative.

54.5% students felt that they had-lost interests in hobbies/recreational activities during the pandemic while 45.5% didn't feel the same.

83.7% students experienced a feeling of tiredness or fatigue during the pandemic while 16.3% responded in a negative.

70% students felt a sense of guilt or inferiority while 30% responded in a negative

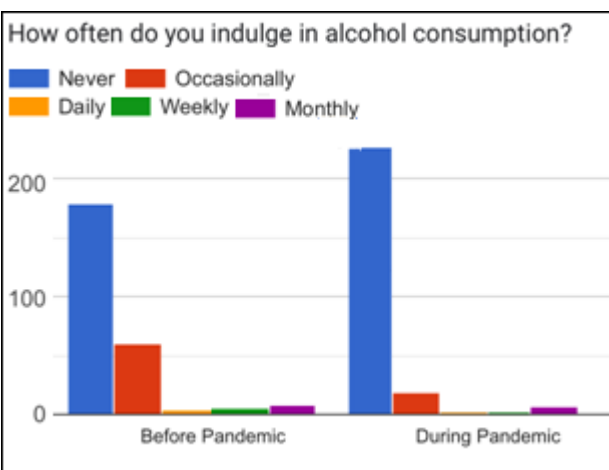


When asked about if the students felt discouraged about their future 76.7% responded in affirmation while 23.3% responded as a no.

When asked whether the students had suicidal thoughts during the pandemic, 18.7% responded in affirmation while 81.3% responded in a negative

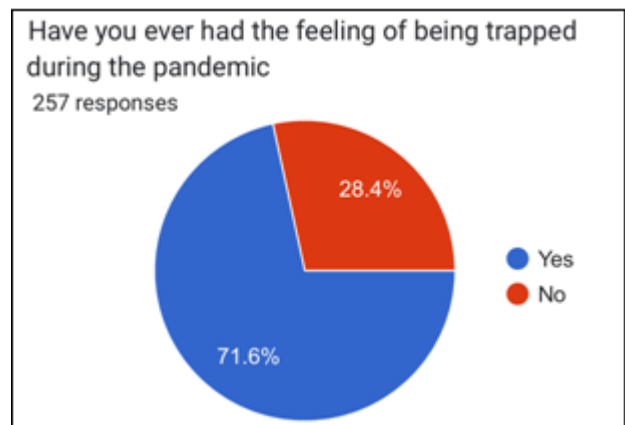
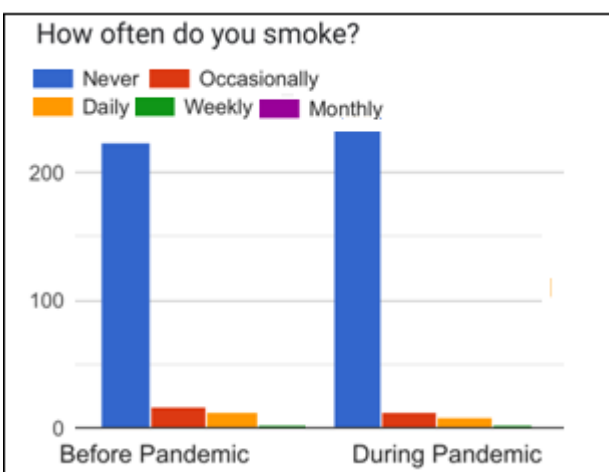
69.3% students affirmed that they were stressed about the pandemic while 30.7% students responded in a negative

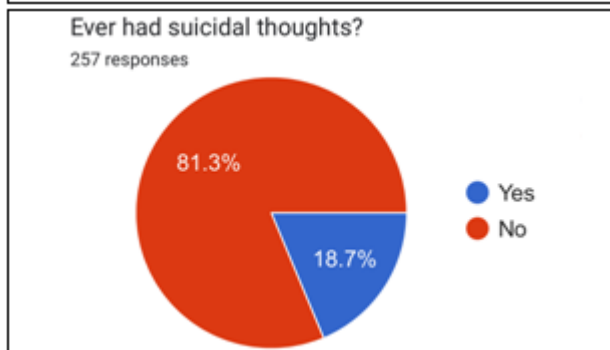
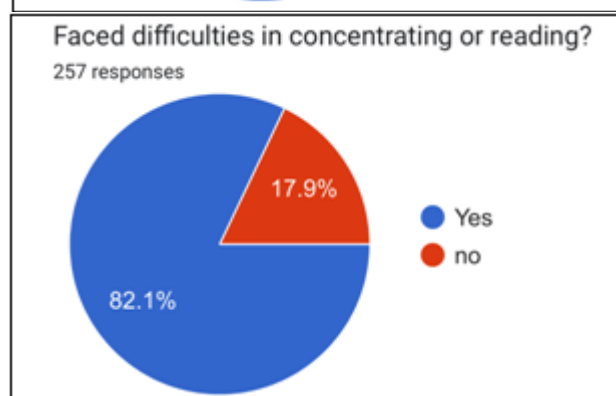
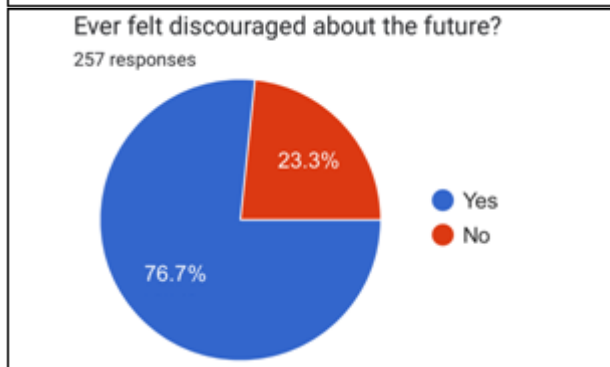
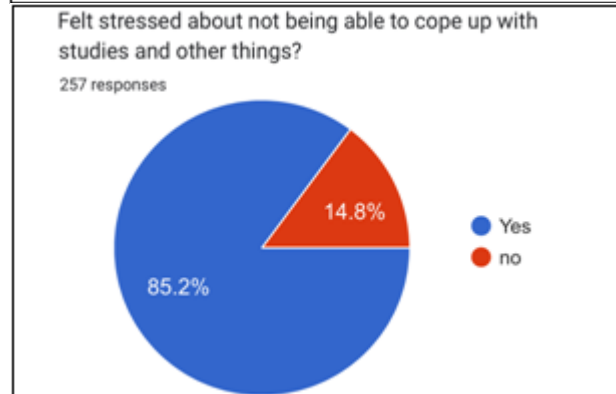
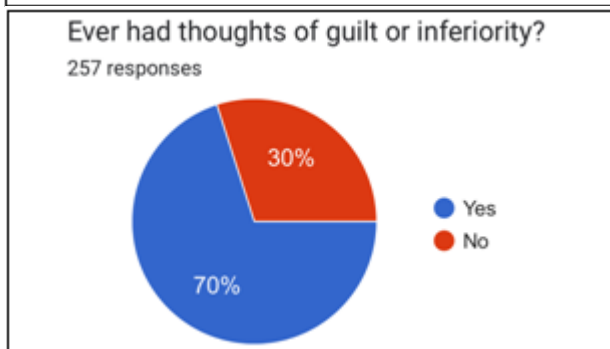
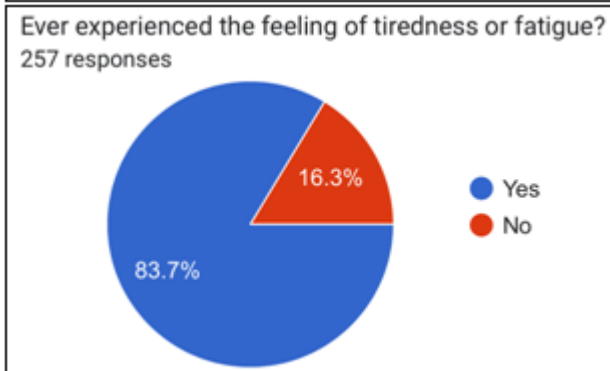
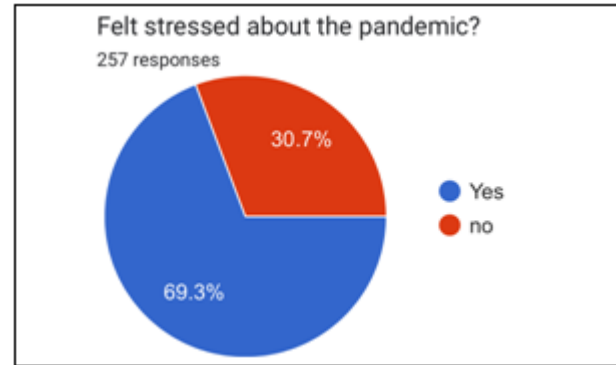
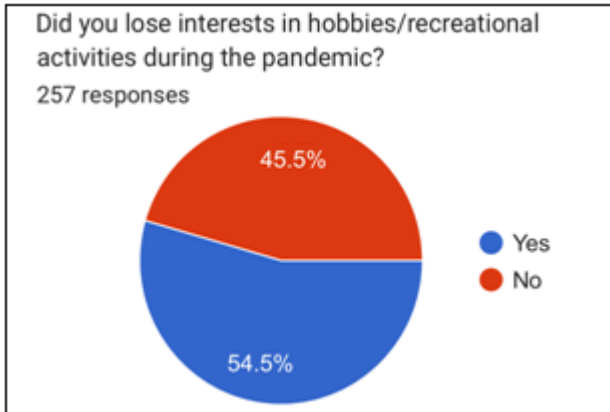
When asked about their eating habits, 36.2% said that there were no changes in the food habit, while 39.7% students affirmed that they were eating more than usual while 11.7% were eating less than usual and 12.5% students skipped meals frequently during the pandemic

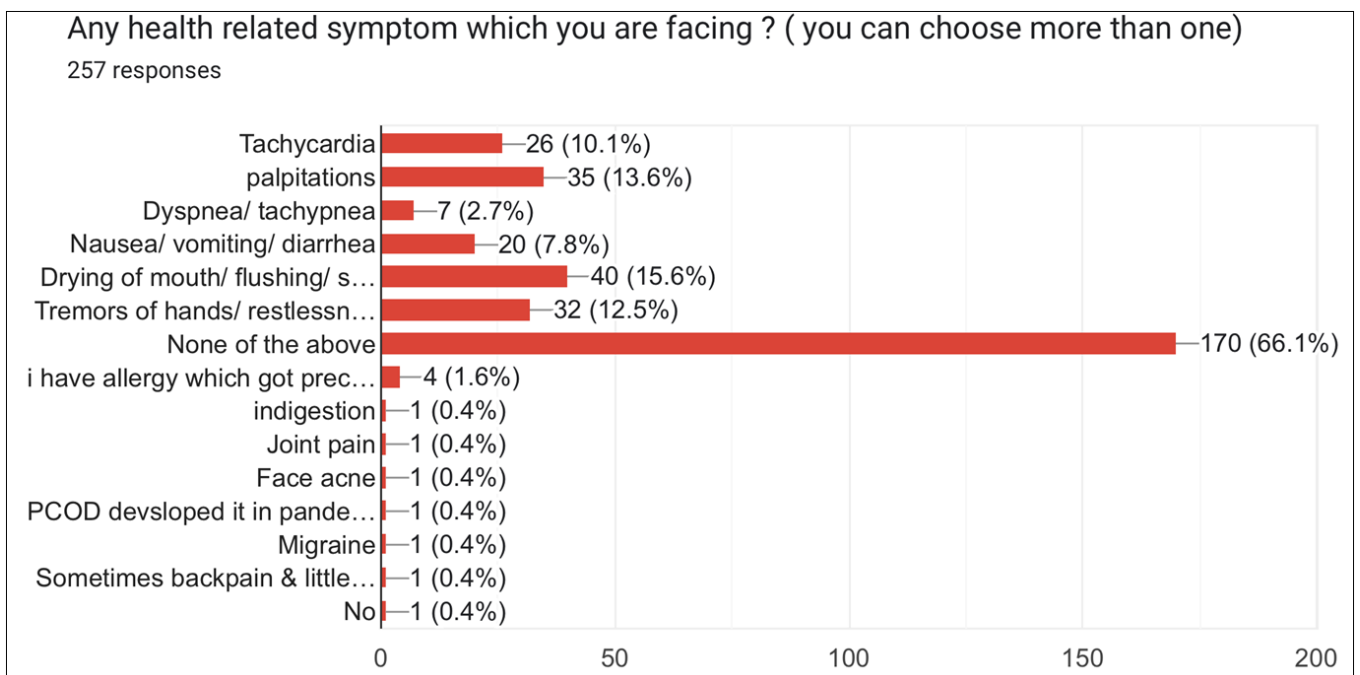
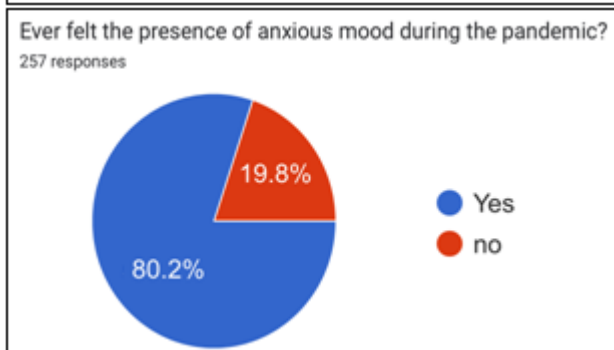
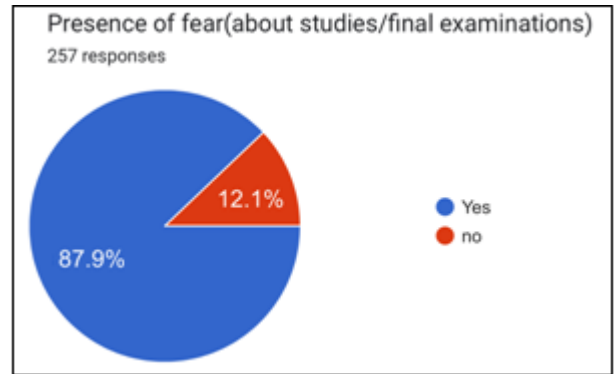
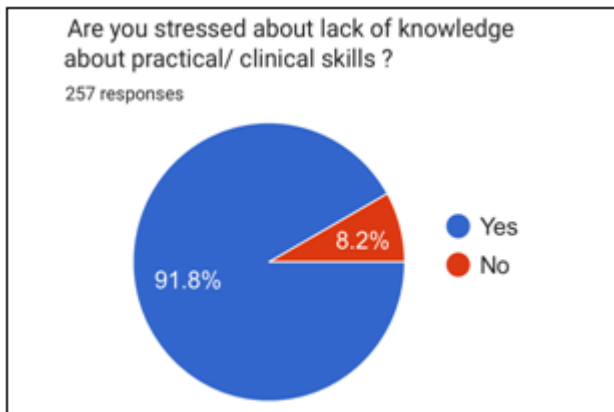


A strikingly large percentage of students 85.2% felt stressed about not able to cope up with studies due to pandemic 82.1% students had difficulty in concentrating or reading 91.8% students affirmed to being stressed about having lack of clinical exposure and practical knowledge 87.9% students affirmed about having fear of studies or examinations. When asked about other health conditions which students might be facing during pandemic-

- 1) 10.1% of students complained of tachycardia
- 2) 13.6% students faced the problems of palpitations
- 3) 2.7% complained of dyspnea/tachypnea
- 4) 7.8% complained of nausea and vomiting
- 5) 15.6% complained of drying of mouth/ flushing of skin
- 6) 12.5% complained of tremors of hand and restlessness
- 7) 0.4% complained of other health issues such as joint problems, indigestion, PCOS, migraine
- 8) 66.1% students had none of the above health issues.







### 5. Conclusion

Psycho social well being among medical students has always been a topic of neglect. There is not enough heed payed for the mental health of the medical student. In the justification of making the students ready for the tough career of medicine, the mental health is considered secondary due to which the suicides have become a common occurrence among the undergraduate as well as postgraduate medical students throughout the country.

Academic stress among medical students and residents, and marital discord in physicians emerged as the key reasons for suicide in one of the research done. [6] On top of it, the

COVID pandemic has increased the stress and anxiety among the medical students. Since the medical education is primarily practical and clinical based, hence there is clear stress among the students about the lack of clinical knowledge which they could have acquired if for the pandemic.

Spending more time over the social media, in turn decreases the concentration span of students leading to increased fatigue and sleepiness leading to increased duration of sleep, altogether resulting in a vicious cycle.

Through this survey, we tend to bring to the notice the mental well being of the medical students among the



medical colleges as well as to the public in general so that there is mutual respect between the caregiver and the beneficiary. There should be regular counselling sessions for the medical students so that the vast medical education don't over whelm them .

This in turn will decrease the violence against the medical professionals by the attendants of the patients and further improve the healthcare of the country.

#### **Conflict of Interest**

None

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