

Viewpoint

COVID-19 pandemic and medical education

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ABSTRACT

COVID-19 has had significant impact on medical students and medical education. In this article, we discuss the effect on medical education and general well-being based on survey and measures to mitigate the same.

Keywords: COVID-19, Effect, Medical education

Novel coronavirus pandemic (COVID-19) has had profound impact on the health-care systems and medical education worldwide. Closure of the medical schools and universities has disrupted the learning and education of future health professionals.^[1] Social distancing measures have forced educational institutes to adapt innovative ways to teach the students, however, providing adequate clinical experience is still a challenge. We conducted a snapshot survey of the medical students all over the world to gain insight into their experience in this pandemic.

Questionnaires designed to assess the impact of the COVID-19 pandemic on education and well-being were sent electronically to medical students all over the world. Web-based platform SurveyMonkey was used to receive and analyze anonymized responses. A total of 107 responses were received with respondents from all years of medical training with majority of them belonging to 1st and 2nd year of training. Three-quarter of the respondents felt that their training has deteriorated in the pandemic. Adaptive response of the universities was visible with notable proportion of students engaged in online teaching/training compared to pre-pandemic times. Up to half of the surveyed students noticed deterioration of their physical and mental well-being during the pandemic and approximately 60% of the students were of the opinion that the pandemic has made an impact on their choice of future specialty.

It is evident from our survey that COVID-19 pandemic has had deleterious effect on the education, training, and well-being of the medical trainees. Medical education is a stepping stone for producing competent doctors for future medical practice. Enough emphasis should be given to opinions of future doctors so that their training needs are met.

This pandemic has resulted in a sea change toward online learning. Many universities have already taken initiatives to start web-based teaching^[1] using platforms such as Microsoft Teams and Zoom for teaching for medical students. E-learning has been shown to help foster self-learning and to be nearly as successful as traditional didactics. It has also been reported that many medical students

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find e-learning enjoyable.^[2-4] However, providing patient contact and clinical experience is still a challenge. Students can be invited into the virtual room to participate in history taking, observe virtual physical examination, be a part of decision-making, patient and family counseling, and planning of implementations of treatment plan. The completion of telehealth interactions that are supplemented by e-learning would help to create a new blended learning model that still promotes patient involvement and would make the learning experience real, unlike sometimes the very impersonal and almost inauthentic e-learning experiences that exist in place of clinical rotations.^[4] Similarly, platforms such as VR4Health can be used to teach anatomy using 3D models of several human organs through virtual reality systems.^[5] Periodic assessment of the trainees and constructive feedbacks is equally important for progressive learning. Innovative methods such as real-time online assessment are needed.

Psychological impact of COVID-19 on health care workers has been significant. Our study shows similar impact on the mental health of medical students as well. It is essential to safeguard the students from adverse psychological effects of the pandemic. Exercise has been linked to positive mental health. One can engage in activities, which can be practiced at home such as yoga, meditation, running, and workouts to improve the physical and mental well-being. Counseling sessions/discussions with stress on self-care such as getting adequate sleep and having healthy diet can play a key role. Keeping in touch with friends and family and avoiding negative coping methods such as alcohol and addiction are essential.^[6] Emphasis needs to be given on establishing a mental health support team with involvement of professionals for counseling and advice wherever necessary.^[6] Transparency and appropriate timely communication regarding the teaching program and assessment of the medical trainees may help in alleviating the anxiety related to their future training.

Further, our survey has demonstrated that COVID-19 pandemic has made an impact on their choice of future specialty. Care needs to be taken to nurture the aspirations of the budding doctors and not to let the pandemic affect their future professional choices. Appropriate guidance and mentoring by teachers and senior colleagues may be helpful for the young aspirants to choose appropriate future path.

To conclude, medical colleges and universities should not disregard the effect of this pandemic on the training and

well-being of the medical students. Primordial importance needs to be given to address their training needs, providing psychological support, and carrier guidance. This calamity has provided us an opportunity to evaluate alternative modes of medical education and assessments. Lessons learned in this pandemic will be invaluable, may help act promptly in future health crises or disruptions to medical education, and may be useful to reform our teaching methods.

Declaration of patient consent

Patient's consent not required as there are no patients in this study.

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Conflicts of interest

There are no conflicts of interest.

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