

DOI: 10.1111/medu.14181

Our education, our concerns: The impact on medical student education of COVID-19

Cara Theoret  | Xue Ming 

Rutgers New Jersey Medical School, Newark, New Jersey, USA

Correspondence: Xue Ming, Department of Neurology, Rutgers New Jersey Medical School, 90 Bergen Street, DOC 8100, Newark, New Jersey 07101, USA.
Email: mingxu@njms.rutgers.edu

In March 2020, it seemed as if our world had been turned upside down. We opened an email from our medical school dean of student affairs stating: Match Day, cancelled. The day that would determine where we trained as postgraduate residents, the day our class had worked towards for 4 years, was cancelled as a result of this new virus of which we seemed to know so little: the coronavirus disease (COVID-19). However, as important as that day was to our fellow Year-4 medical students and ourselves, we quickly learned that the impact was much larger. What about our electives, our mandatory rotations, and even the sub-internships students still had to complete? Moreover, 'What can we do to help?' became a question commonly voiced by all students. We want to see this not as a detriment to our education, but as a learning experience, and one that will teach us how to be best prepared to help now and in the future. One way to help is by making changes in medical education to ensure all students continue to receive the absolute best level of education possible. This starts with recognising the options we have and utilising all of the tools at our disposal, despite the boundaries created by COVID-19.

One way to help is by making changes in medical education to ensure all students continue to receive the absolute best level of education possible

In terms of clinical rotations, the climate has changed such that rotations around the world have had to remove all forms of patient contact and switch to online learning. Many of us wonder about the impact this has on our education, not just for those in Year 4,

but for all our fellow students. How can one complete medical school without undertaking a core rotation that includes patient interaction? E-learning has been shown to help foster self-learning and to be as successful as traditional didactics. It has also been reported that many medical students find e-learning enjoyable.^{1,2} However, completely losing all patient contact, but still receiving full credit for a core clinical rotation sounds concerning, especially for Year-3 medical students who were planning to attend rotations elsewhere in the next year. What will we do, and what will the medical system do with us, if we do not have exposure to specific types of patient prior to an away rotation due to the loss of direct clinical contact?

Many of us wonder about the impact this has on our education, not just for those in Year 4, but for all our fellow students

Telehealth has become a big factor in delivering health care across the globe.³ It is even more apparent now that there are significant benefits to the use of telehealth by both doctors and more widely in medicine. Given its use, the engagement of medical students in this realm seems not only highly beneficial to students themselves, but also to patients in need of care. Through telehealth, students can be invited into the virtual room to participate in history taking, to observe virtual physical examination, and to be a part of decision making, patient and family counselling, and the planning of implementations. 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 the sometimes very

impersonal and almost inauthentic e-learning experiences that exist in place of clinical rotations.

The completion of telehealth interactions that are supplemented by e-learning would help to create a new blended learning model ...

Now, it is clear that the current pandemic has an effect not only on the core clinical rotations of medical students, but also on the experiences important for early medical student education, including problem-based learning interactions, in-person anatomy dissections, group learning sessions, local examinations and licensing requirements. The accompanying uncertainty and the wide variety of change are having substantial effects, notwithstanding the loss of the hands-on experiences countless medical students were previously able to enjoy. This again raises concern about what is being done to replace these courses. The utilisation of newly developed resources, including virtual anatomy dissection, WebEx (Cisco Webex, Milpitas, CA, USA) and Zoom™ (Zoom Video Communications, Inc., San Jose, CA, USA) conferences, and continued online communication may be key to helping to ensure that the many nuances of learning that are delivered through these experiences are not completely lost. Of course, these new experiences will not be the same as previous ones, but applications such as (VR4Health, _cublen, Switzerland) have been shown to facilitate students' learning of the various anatomical structures and their relationships with one another.⁴ Feedback from teachers is invaluable, but can be achieved with the use of online video communication services in which the teacher can utilise screen-sharing options to walk students through anatomy on any online forum. Some schools already include virtual anatomy in their courses, but current needs must be met by adapting and collaborating as a whole to optimise our medical education broadly. More actions need to be taken to make similar resources available to all students.

Overall, it is reassuring that there is a wide variety of tools at our fingertips. Although many medical students seem to be concerned about whether they will graduate on time, the factors that are most important at this moment are transparency, communication and making use of the wide variety of online resources that

Key message

The coronavirus disease (COVID-19) has concerned medical students globally. We want to be prepared to provide care, but that starts with finding the best way to educate in the current climate.

exist to help promote our learning in the best ways possible. All medical schools need to work together to adapt and accomplish these. We as medical students chose to go to medical school: we want to be educated, we want to be prepared, and we want to learn all that is necessary to be ready to play a role on the frontline when we are needed. Now, we need everyone to use the current circumstances as a learning experience and to learn about other tools with which to deliver teaching, other ways in which to learn, and how to be best prepared for any future circumstances that might hinder in-person communication and clinical practice. We are the future and we want to learn absolutely everything we can to be the best doctors we can be.

*... we want to be educated,
we want to be prepared, and
... ready to play a role on
the frontline when we are
needed*

ORCID

Cara Theoret  <https://orcid.org/0000-0002-1986-8788>

Xue Ming  <https://orcid.org/0000-0003-0752-5777>

REFERENCES

1. Ruiz JG, Mintzer MJ, Leipzig RM. The impact of E-learning in medical education. *Acad Med.* 2006;81(3):207-212.
2. Huynh R. The role of E-learning in medical education. *Acad Med.* 2017;92(4):430.
3. Tuckson RV, Edmunds M, Hodgkins ML. Telehealth. *N Engl J Med.* 2017;377(16):1585-1592.
4. Fairén M, Moyés J, Insa E. VR4Health: personalized teaching and learning anatomy using VR. *J Med Syst.* 2020;44(5):94.