

# Coalition for medical education—A call to action: A proposition to adapt clinical medical education to meet the needs of students and other healthcare learners during COVID-19

## Abstract

With the ongoing coronavirus, journals and the media have extensively covered the impacts on doctors, nurses, physician assistants, and other healthcare workers. However, one group that has rarely been mentioned despite being significantly impacted is medical students and medical education overall. This piece, prepared by both a medical student and a cardiothoracic surgeon with a long career in academic medicine, discusses the recent history of medical education and how it has led to issues now with distance-based learning due to COVID-19. It concludes with a call to action for the medical education system to adapt so it can meet the needs of healthcare learners during COVID-19 and even beyond.

## KEYWORDS

medical education

Historically and until the very recent changes imposed by the COVID-19 pandemic, medical education systems have traditionally been structured as didactic, in-person learning. For medical schools, the first 2 years of basic sciences have primarily been held in large lecture halls, whereas the latter 2 years are held mostly in the clinical setting. Within the last few years there has been a dramatic shift in the learning structure of the first 2 years due to digital platforms largely replacing in-person learning. These innovations have provided students with flexibility and efficiency that they dramatically prefer. In contrast, comparable platforms for the third and fourth year curriculums have largely been absent.

Postgraduate medical and surgical education traditionally had in-class didactic sessions such as Grand Rounds, Morbidity and Mortality Meetings, Resident Presentations and other learning opportunities requiring group participation. Furthermore, continuing medical education for practicing physicians also included small and large group meetings, seminars, as well as local, regional, national and international conferences that bring varying sizes of practicing physicians to learn and teach one another. These important educational

traditions have been part of our learning experience for many decades and more.

The recent COVID-19 pandemic has restricted the ability of medical schools, hospitals, professional medical organizations, societies, and associations to conduct in-person learning. An unofficial document from Reddit (a widely popular social network) that received student-submissions calculated that of 200 American medical schools, over three-quarters have suspended or cancelled clinical activities for 3rd-year students and/or 4th-year students.<sup>1</sup> The first 2 years already have the infrastructure to rapidly adapt—most schools post lectures online, and there are a plethora of online resources available to students. In contrast, this infrastructure has been less developed for the clinical years leaving medical schools unprepared to suddenly improvise a distance-based curriculum. Likewise, many medical and surgical associations have cancelled their major in-person annual meetings.

Attempts to rapidly adapt to the increasingly required “social distancing” have varied among institutions and organizations. Authors have contacted several colleagues at different institutions inquiring about how their schools have remodeled the third year curriculum. Most schools appear to be fulfilling 4th year elective requirements online until they can resume 3rd year clinical rotations in an attempt to not compromise the quality or quantity of medical education. But in the event that the coronavirus pandemic keeps students out of hospitals for a prolonged duration, these aforementioned changes to the medical school curriculum will be unsustainable.

At one institution, students have continued the third year curriculum but in a purely “non-clinical” format. Faculty have continued to lecture and to lead simulations using online video conferencing platforms like WebEx, Zoom, and so forth. However, there are many associated issues with this new format. First, lectures and simulations composed only a minor component of the existing curriculum, so there were not enough prepared to satisfy a full clerkship. Furthermore, faculty have been adjusting to their own professional and personal needs in this rapidly changing climate, limiting the ability of faculty to create more educational content. As a result, clerkship directors have turned to student leaders to improvise learning activities and discussions to maintain student involvement in the curriculum. In another institution, live video meetings, lectures and tutorials have promptly replaced the in-class resident meetings and lectures.

A grass-roots effort to provide online undergraduate and graduate clinical education and continuing postgraduate medical education may be the solution to satisfy the educational needs of medical students and other learners during this time. First, an organization that draws instructors from across the country or the world provides tremendous resources to create a full curriculum that no individual institution can rapidly create and implement. Second, an online platform to distribute clinical content would both abide by the safety guidelines put forth by the Association of American Medical Colleges and other governing and advisory bodies and be flexible to rapidly adapt to constantly changing timelines and guidelines.<sup>2</sup>

Like many aspects of modern day life, education has changed dramatically during the coronavirus crisis. With all of the rapidly developing innovations that the coronavirus pandemic has sparked, it is hard to imagine that life will suddenly return to the previous status quo when the pandemic resolves. While in-person learning will always remain an essential component of the clinical curriculum, distance-based learning may prove to be a highly effective, flexible, and thorough supplement or even alternative. This crisis could be the catalyst that pushes clinical medical education for medical students, residents, and practicing professionals to innovate and utilize online learning. However, it is imperative that the medical education system prepares to adapt to this challenge sooner versus later.

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