“Digital Clinical Placements”: Challenges in a Lower Middle-Income Country

To the Editor: To adapt to the COVID-19 pandemic and a nationwide lockdown in Nepal, my medical school shifted in April 2020 from traditional classroom-based lectures to online theory classes. In these times, “digital clinical placements,” as proposed by Sam et al., seem like the most plausible way of allowing medical education to continue. However, such virtual clinical placements present a set of challenges for a lower middle-income country like mine. The technologies required for digital clinical placements might not be as easily available in low- and middle-income countries as they are in higher-income nations. Before the pandemic, medical education at my institution relied on traditional lectures and “real-life” clinical placements. Technology use was largely limited to lecture slide presentations and occasional audiovisual aids. Online learning is a new method of teaching and learning in Nepal. Neither my country’s policies nor its infrastructure seem to have caught up with this novel modality.

The Nepal Medical Council has announced that it will not accept any substitutions for the usual in-person and hands-on training in a medical school. Therefore, virtual clinical placements will not be considered the same as hands-on placements for completion of medical training and eligibility for a medical license. But with an increasing number of COVID-19 cases and a second nationwide lockdown in place, my institution decided in August 2020 to trial some practical classes (online placements).

Unfortunately, the lack of reliable Internet access and the unreliability of mobile data proved to be a major constraint for some of my colleagues who returned to their villages during the pandemic. A few of them have not been able to attend any or most of the online classes. For the rest of us, poor audio and video quality due to slow Internet connections has affected the clarity and smoothness of the classes. For example, identifying clinical instruments and specimens is an essential part of our clinical placements and university examinations. Learning them through the pixelated video, because of poor connections and use of integrated webcams, has been difficult. Moreover, the very essence of clinical placements—patient history, examination techniques and findings, investigation and management plans—all of which should be included in a “digital placement”—seem to be lacking.

Therefore, while the uncertainties of the future are still in place, with COVID-19 cases rising and the possibility of a third lockdown, for now we are eager to resume in-person training in our institution in October 2020.

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In Reply to Guragai: We were delighted to read Mandeep Guragai’s letter, which is a timely reminder of the inequality of technological and educational access across the world. Guragai makes important points, and we wish to comment on 2. The first point is the position of the Nepal Medical Council in relation to not allowing substitution for hands-on training. In normal circumstances, we would be in agreement; however, we are not in normal circumstances. Training programs across the world are having to make numerous adjustments to cope with the challenges of the COVID-19 pandemic. The consequences of effectively pausing training need to be balanced against the anxiety that new technological solutions, such as digital clinical placements, are somehow not as good. This anxiety is legitimate, which is why it is important that the introduction of any new educational technology be subject to rigorous academic appraisal and formal validation. In addition, as clinical teaching is gradually reintroduced, clinical educators will face new challenges. We need to decide in advance what instruction should be face-to-face and what should remain online—and get the balance right—while protecting students and staff. At our institution, our planning process has allowed us to reflect on what is core medical knowledge and has provided an opportunity to review how we teach aspects of our medical curriculum.

The second point is that access to mobile data and the Internet is unequal across the world, which is illustrated by Guragai’s experiences. The Pew Research Center in 2019 estimated that more than 5 billion people have mobile devices, and while the median smartphone ownership is about 45% in emerging economies, it is higher among young adult populations (e.g., 74% in the Philippines). Furthermore the number of mobile phone owners continues to grow. This increased access to smartphones presents medical educators with an extraordinary opportunity, and we must learn from first-hand experiences, such as Guragai’s. Medical schools such as the Imperial College School of Medicine, in collaboration with students and doctors from countries like Nepal, will be able to innovate and validate new technological solutions to the challenges of delivering affordable and accessible high-quality medical education in both West London and Kathmandu.

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Letters to the Editor

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A Student-Led Medical Education Initiative in Iran: Responding to COVID-19 in a Resource-Limited Setting

To the Editor: Iran has had the highest number of COVID-19-related hospitalizations and deaths in the Eastern Mediterranean region: As of October 3, 2020, 464,596 confirmed COVID-19 patients and 26,567 deaths were reported.1 When the first COVID-19 patient was detected in Iran on February 19, 2020, hospitals entered into a state of emergency due to shortages of personal protective equipment and frontline staff. Our medical school classes were suspended, and our clinical attending professors were overwhelmed with hospitals’ soaring patient loads. Additionally, limited infrastructure capabilities for transferring traditional in-person medical education to online platforms have contributed to anxiety and fear of an uncertain future amongst medical students. We, as senior medical students (sixth- and seventh-year students [medical interns]) in the capital city of Tehran, aimed to contribute to the COVID-19 response in Iran by filling the medical school educational gap through a student-led COVID-19 initiative.

Under the supervision of 2 clinical attending professors, in late February we developed a student-led 2-week follow-up program for discharged COVID-19 patients. More than 70 fourth-year through seventh-year medical student volunteers participated in a 40-hour online training course on COVID-19-related prevention and care. Starting on March 9, 2020, through follow-up phone calls, fourth- and fifth-year medical students interviewed patients on days 1, 2, 3, 5, 7, 10, and 14 after their discharge using a predetermined research protocol; recorded patients’ clinical data in an online database; provided education and support for patients and their family members; and regularly reported patients’ status to senior medical interns and the 2 clinical professors. Patient profiles were presented in interactive online platforms (i.e., WhatsApp group, teleconference calls, Skype presentations) for a thorough discussion of lessons learned and improved decision making for future patient follow-ups. In the first phase of implementation, medical students collected data on more than 820 recovered COVID-19 patients via these telephone-based surveys.

Our experience illustrates that medical students can play a meaningful and impactful role in the COVID-19 response via innovative online programs. Our student-led initiative has been well received and enhanced students’ learning processes by lowering cognitive distance, role modeling exercises, and providing a safe learning environment. Our program also helped address the COVID-19-related increasing levels of anxiety, frustration, fear, and demotivation among medical students and interns through regular meetings and engaging them in the COVID-19 response. Medical schools—particularly those in resource-limited settings with already overburdened health care systems and restricted financial and human capital resources—could greatly benefit from student-led, peer-to-peer online educational platforms designed to compensate for the loss of educational and direct patient care opportunities brought about by the COVID-19 pandemic.

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Remote Learning for Medical Students in Nigeria During a Pandemic

To the Editor: As an international medical graduate who finished medical school in September 2019, I found resuming my training in Nigeria in January 2020 in a compulsory one-year internship in the middle of the COVID-19 pandemic to be quite challenging. My classmates and I recited the Hippocratic Oath with joy and celebrated with our parents over the successful completion of medical school only to find ourselves being recruited into a battle against an enemy about which the entire world is still learning. It was tough working with a limited supply of personal protective equipment. Several front-liners at my hospital got infected and were admitted immediately into an isolation center. This decreased the number of medical workers available to take care of an already overwhelming number of patients.

There is a shortage of doctors in Nigeria,1 and COVID-19 has caused a further decrease in the number of health workers by stalling medical education in my country. Clinical activities for medical students have been suspended due to government-mandated social-distancing guidelines and are expected to resume when the pandemic ends. There is uncertainty as to when medical students will begin to attend clinics and observe surgical procedures again. The lack of electronic medical records (EMRs) makes it difficult to create platforms to conduct virtual ward rounds.2 In the meantime, students have been encouraged to embrace remote learning. They can join live video lecture sessions via Zoom and access study materials using Telegram and WhatsApp. Participation in remote learning, however, has created additional costs for data and Internet services.

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