COVID-19 Pandemic and Medical Education in India

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ABSTRACT

The severe acute respiratory syndrome coronavirus 2, also known as SARS-CoV-2, was the coronavirus strain that caused the COVID-19 disease. The COVID-19 pandemic has emerged as the greatest public health and societal challenge. Imposition of a prolonged-nationwide lockdown as a public health intervention in India to contain transmission impacted all public spheres, including medical education. Academic activities in medical schools came to an abrupt suspension during the lockdown for a period of 10 to 12 weeks. During earlier pandemics, in-person training in hospitals continued in developing the students’ skills and competencies. These include the diagnosis and management of hospital cases and control the community-disease transmission. However, the current COVID-19 pandemic is distinct. Online training started due to extended lockdown, which require careful planning and further study.

Key words: COVID-19 • Corona virus • Pandemic • Medical education • Medical students • Physician training • Clinical training • Disease transmission • Clinical skills • India

The severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) and its resultant corona virus disease 2019 (COVID-19) pandemic - has unprecedentedly impacted the health and socio-economic conditions in India. It disrupted people’s daily lives, choking the nation’s development, and adversely affected the economy. The closure of all institutions, including medical colleges, stalled all educational activities. For the first time since the inception of modern medical education in India, the ongoing teaching in medical colleges came to a grinding halt. During previous pandemics, such as the plague of Spanish flu, SARS, MERS, and epidemics of smallpox, in-person medical education continued; students could learn public health and the clinical care of patients in the hospital and community settings. However, drastic changes occurred during the COVID-19 pandemic.

On March 24, 2020, the Government of India announced a national lockdown and simultaneous promulgation of the National Disaster Management Act, which forced all medical colleges to suspend face-to-face teaching and training activities by an executive order of the district magistrate. With the college closures, students had no choice but to leave their hostels and go home, teachers were also required to stay at home. All academic activities came to a standstill. There were no
immediate directives regarding the pending training of medical students from the universities, and from the Directorate of Medical Education, or even from the Medical Council of India (MCI). About eight weeks following the lockdown, the University Grants Commission (UGC) issued a guideline for online teaching. The universities directed their affiliated medical colleges to start online classes. Initially, there were no instructions from the MCI, the autonomous body that sets the standards for medical education and provides standard protocol to conduct teaching and learning activities. Later in November 2020, the National Medical Council (NMC), the restructured organization of MCI hosted the “Module on Online Learning and Assessment.”

During the lockdown period, the Board of Governors in suppression of MCI only made some amendments in the postgraduate examination rules and relaxed the existing rules to appoint external examiners for conducting the postgraduate examination. Unfortunately, the undergraduate board of MCI, which is responsible for introducing competence-based graduate curriculum from session 2019-2020, could not support the medical college teachers in conducting online classes on time. To comply with the university directives, deans of medical colleges directed the faculty to undertake online teaching. Interestingly, the lockdown happened just six months after the launching of the MCI's new competency-based curriculum (CBC). One semester was already over with a new component of early clinical exposure and competence development under strict monitoring of the MCI's Regional Medical Education network. Through the network’s comprehensive reorientation program and several workshops, teachers were trained to implement the competency-based curriculum. However, the ongoing CBC learning of medical students was interrupted and introduced the new online teaching and learning support.

Medical teachers are familiar with digital teaching but organizing and conducting virtual classes taking into consideration the CBC require specialized skills and meticulous planning. Online teaching is not merely an extension of the digital classroom; it should have an established methods of teaching and learning. In the newly launched online teaching, the students' participation and their learning problems were inadequately addressed. The laissez-faire approach of organizing online teaching by medical college teachers needs a critical appraisal, especially in understanding the learner's response and the impact on developing critical knowledge, skills, and competencies. As the apex body that maintains the standard of medical education in India, NMC should assist the teachers in developing their online teaching competencies through their regional medical-education networks.

Nonetheless, the silver lining in the online teaching saga is the instantaneous response from different telecommunication companies and online teaching aid agencies. They provided access to various online streaming and conferencing tools either free or as subsidized internet data package. The established and enterprising publishing agencies of medical books and teaching aids also started producing accessible teaching and learning tools, some of which were promotional or moderately priced. The available e-resources including e-books, e-journals, databases, and PowerPoint presentations helped most teachers and students on their online classes. But not all of the materials are on the curriculum-recommended list. Experts and experienced teachers should review any teaching tools and determine their suitability for effective teaching.

The impact of online teaching to the development of critical knowledge, skills, and competencies need to be assessed, and determine if remedial measures should be initiated. But it is to be noted that teachers have missed a lifetime opportunity in training future medical graduates due to the limitations brought by the containment methods for a pandemic, such as COVID-19. Epidemics and pandemics are not recent phenomena in India. In the past, in-person medical education continued and medical students participated in controlling the pandemic under the guidance of experienced teachers both in clinical and community settings. However, if medical teachers and educators of this millennium see
the need for conducting the clinical and public health training in a laboratory or in a virtual setting they will have to draw a new model for teaching, learning, and train teachers, accordingly. In this age of artificial intelligence, modern medical educators and trainers with their ingenuity are trying to revamp ongoing medical education based on the concept of Osler and Flexner, the pioneers of modern medical education.\(^2\) The endeavor is appreciated, but epistemological insight of adult learning and competence development with digital support is needed.

**Compliance with Ethical Standards**

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**Reference**