

Adapting Healthcare Teaching to Coronavirus (COVID-19): A Perspective from India

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Abstract

Summarises the important skills that will be required to make future doctors pandemic ready and the steps taken for medical education in India. The recommendation of severe, widespread social seclusion has sparked a global shift toward purely online course delivery. For HPE, which has historically relied on in-person learner interaction through simulation training, clinical rotations based in industry, and skills labs, this is an issue. It has become necessary to address specific difficulties related to the development and delivery of high-quality curricula and

educational activities as a result of the switch to online-only course delivery. Regional, rural, and remote health scholars and practitioners may offer priceless ideas into how to leverage technology to get around the tyranny of range, support high-quality online HPE, and facilitate the on-going growth of communities of practise in this context.

Keywords

COVID-19, Medical education, Pandemic, Curriculum, Online teaching, Virtual, Health Professional Education

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1. Background

The coronavirus pandemic has within a few months changed the way we look at life, manage our daily routine and carry out our duties working from home. This is a major upheaval and is setting a new normal for our personal and social interactions. It has affected everyone; medical health workers, doctors, labourers, managers, entrepreneurs, educators and majorly the students. The period during which they are interacting with others gathering nuggets of knowledge is being spent closeted at home, having online classes, doing online homework and also taking exams. The personal touch is missing. Worst hit are streams where the teaching has always been hands on, and didactic like medical students.

Undergraduate medical students have been kept away from hospitals since they could spread the virus when asymptomatic or acquire the virus in the course of training. Hence most countries have adapted to online teaching for preclinical courses. Even for clinical coursework, distance learning, although challenging, is being tried through simulation programmes using virtual patients on virtual platforms. [1]

Medical conferences stand cancelled or are virtual too. Students will now miss out on the valuable experiences of presentations and collaborative experiences [2]. Indian Medical Association (IMA) under its initiative Doctors 4 Doctors (D4D) has recently launched

a handbook titled *Surviving Covid-19 as a medical student*. In the introduction, it states “Learning anatomy dissection virtually is unrealistic as the tactile element and real-world complexities of the body cannot yet be simulated satisfactorily. Medical education and indeed medicine as a profession was never designed to be fully online. We do not know the impact of large gaps away from direct, in-person clinical rotations” [3].

Opposed to this another author says ‘Throughout history, learning has resulted from emerging pandemics – such as HIV/AIDS and Influenza of 1918 – contributing to the advancement of medical education in the setting of curricular innovation for the next generation of health professionals’ [1].

True, curricula are being revised across countries to adjust to these constraints presented by the pandemic and the need to prepare epidemic warriors for the future. Experts will certainly create the best framework to be implemented at various levels but a couple of skills need mention here as mandatory for the future.

- Immunology not as a niche area in Pathology or Haematology, but as a whole subject.
- Since majority of the biological molecules discovered over the last two decades modify the effects of cytokines, specific modules on cytokines, their origin, functions, effects of potentiation or inhibition and their interaction would be essential.

- Quick and correct way of donning and removing a PPE kit.
- Intubation should be taught to everyone at postgraduate level, so that one doesn't have to wait for an intensivist to arrive and intubate the patient in times of crisis.
- Finally, every medical student must be taught empathy and end of life situation management. Here the patients as well as relatives require a patient ear, some emotional support, some advice, and help to manage last rites or formalities and sometimes convincing the relatives for organ donation.

2. India

India seems to have done well in managing Coronavirus. As early September 2020 the number of confirmed cases is 4.2 million with 71600 deaths (1.7%). This, in a country of 1.3 billion people compares favourably with the global figures of 27 million and 880000 deaths (3.25%). Given the huge population, we could soon be world toppers in terms of absolute number of cases by the time the pandemic is under control, but a smaller percentage of deaths compared to other countries are no mean achievement.

This pandemic has exposed the deficiencies in the healthcare infrastructure of the country. But the initial lockdowns were used wisely to set up massive COVID treatment facilities in each city, and improve availability of PPE kits and ventilators. We are also short of trained medical and paramedical personnel. WHO recommends a doctor patient ratio of 1:1000. India reaches that figure only if we consider doctors of all streams of medicine line modern medicine (Allopathy), homoeopathy, Ayurveda, Unani, but everyone is not in active practice [4].

Undergraduate medical students could not be on the forefront for obvious reasons, but all other levels of medical personnel are actively helping in the efforts. Teaching is online using common group apps like Zoom, Webex, Teams or dedicated platforms established by certain universities. Every student may not afford a desktop or a laptop but almost everyone has a mobile. Hence all teaching is mobile friendly [5].

In the medical profession, the new entrants usually cut their teeth handling cadavers during Anatomy trainings. This is not going to happen. A few institutes in India were already using virtual dissection systems even before this pandemic [6], others may have to soon follow suit.

Medical examinations have been postponed but not cancelled since it is important to evaluate a student before certifying him/her to treat patients. These examinations however will be online. The practical examinations will be managed with simulated situations. The numbers of examinees for post-graduation are few, so their practical examinations have been held as a combination of live cases along with use of electronic media. However strict protocols were followed to ensure the safety of the patient and the student.

Entrance exams for the next academic year have also begun with strict seating protocols and SOPs.

The Board of Governors (BoG) of the Medical Council of India the apex body for medical education has along with expert academicians, revised the curriculum of the undergraduate medical course. It has decided to include a module on pandemic management running across all the years.

„This pandemic management module is designed to ensure that MBBS student acquires competencies in handling not only the illness but also the social, legal and other issues arising from such disease outbreaks. The emergence of COVID-19 and its rapid spread across the globe has further underlined the need to develop these skills in our graduates,“ Dr V K Paul, the chairman of the BoG said in the foreword.

According to the foreword, „pandemic or disease outbreak calls in to play all the five roles envisaged for the Indian medical graduate viz. clinician, communicator, leader and member of the healthcare team, professional, life-long learner and committed to excellence, is ethical, responsive and accountable to patients.“

The module covers history of outbreaks, epidemics and pandemics, infection control practices, sample collection, microbial diagnosis, serologic tests and their performance parameters, vaccination strategies including vaccine development and implementation, therapeutic strategies including new drug development and care of patients during pandemics among others [7].

This is a very clear vision that will ensure that we have future medicos comprehensively ready to serve society as doctors, leaders, visionaries.

3. Conclusion

The COVID pandemic has certainly rattled society in every walk of life. Major changes will happen in medical education both in areas of pedagogy as well as curriculum so as to have future generations of medico's pandemic ready.

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5. References

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