

Editorial

Online Medical Education- Moving from Choice to Necessity

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Introduction

Medical curriculum is changing rapidly, because of the exponential growth of medical knowledge & the diversified demands of the profession. Changes are made in the content, competencies, methodologies and assessments continuously. An educational program or curriculum is not considered alive, appropriate & up to the mark unless it is continuously tailored to the requirements of the time, society and the students. Teaching strategies are being molded, switched, amalgamated and invented to meet the objectives.

Modern day life is studded with different technologically advanced gadgets and has revolutionized the educational process. This E-revolution has effected medical education also. The online learning in fulfilling the needs of healthcare workers is rightly endorsed by the United Nations & WHO also.^{1,2}

Online or E-learning can be defined in multiple ways. According to Ellaway & Masters³, “e-learning encompasses a pedagogical approach that typically aspires to be flexible, engaging and learner-centered; one that encourages interaction (staff-staff, staff-student, student-student), and collaboration and communication, often asynchronously (though not exclusively so).”

The use of technology & electronic devices is essential to the online learning. Many words like internet based learning, web based learning, distributed learning and computer assisted learning are synonymously used for this, but online learning & e-learning are the commonest.⁴

In December of 2019, “COVID-19” started in China,⁵ which in a couple of months converted to a “pandemic”,⁶ a never seen before phenomenon for us. This pandemic has changed the world in a multifarious manner, and is still continuing to do so. The Education system is also one of the most affected ones. In efforts to prevent the spread, most of the countries had to go for lock-downs, leading to closure of educational institutions including medical colleges.⁷ This has led to the

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significant loss of time and learning, to future health-care personnel. The closure of educational institutes in many countries, has highlighted, the need of alternative options to “on-campus” or “face to face”, form of teaching & learning.⁸ The United Nations Educational, Scientific and Cultural Organization (UNESCO) has recommended to opt for distant learning, and to use online learning platforms. This recommendation is to make it possible for institutions and teachers to facilitate students, to avoid major disruptions in students’ learning due to the closure in this pandemic.⁸ In present situation, online education has emerged as the best alternative choice to on campus education, although there are arguments for & against it.

Online or E-education was in partial practice of few medical colleges/ universities, but not in most of medical institutions, before COVID-19 pandemic. With a sudden emergence of the need to go for online medical education, most medical colleges found it impossible or at least very difficult to implement it as the alternative instructional strategy. Many institutions are still having difficulty in managing online education. Common reasons responsible for this difficulty, are inadequate organizational arrangements, lack of teachers training, lack of wide range availability & quality of internet along with a fear of un-used technology.

Online education as a whole and in particular with reference to the medical education has both advantages and disadvantages. Advantages include use of fewer infrastructures, convenience for staff & students, ability to involve a large number of students through online lectures or webinars and less resource consuming etc.^{9,10} The most important advantage is, its ability to keep the students and teachers glued to studies while practicing social/ physical distancing completely, the pivotal demand of the preventive measures. The disadvantages include internet dependence, so may cause difficulties in far flung areas, demands special training of faculty and to some

extent students, less motivating and having no or minimal face-face interaction comparatively. The most important disadvantage is the lack of hands on, practical or clinical training. Prolonged sitting in front of computers or using mobiles also have adverse effects.^{11,12}

Because of the urgency it was started and has created its important place in medical education now. Many tools are being used which provide live lectures, webinars & discussions. Social media applications, emails etc. are also being used to make it as effective as possible. There are many more coming and being tested to launch adding the already present pool.

It is actually the will and the reality based expectation that can make it more effective. If convinced from heart to use it, teachers and facilitators can use online learning as an excellent educational & instructional tool. Otherwise, if done halfheartedly, it may prove to be a sham. The teachers should collectively plan the layout of online teaching strategy. This should include use of most pertinent tools for online live lectures, podcasts, social media applications, recording of video lectures, effective presentations etc. Universities and medical colleges should utilize "Learning Management Systems (LMS)" to organize all online academic activities at a single place for convenience of teachers, students, and management to maintain the quality assurance.¹³

Opting for online learning is the need of the hour. The situation has now shifted from optional to inevitable and from choice to a necessity. The institutions utilizing it are definitely at an advantage than those who are not.

Crises or difficulties provide opportunities to improve. COVID-19 Pandemic has also made us realize that how humans can be so helpless, and at the same time can be helpful to others. It has taught us that we were lucky while busy in our apparently hectic routines. Sitting idle at homes with restrictions is not as good as it used to look. Health systems need overall re-structuring globally, but developing nations like us should invest much more in our health system in every aspect. It has also provided an opportunity to add an organized system of online medical education, which may be helpful in times of emergencies as well as during normal life. Online education cannot be a complete replacement or alternative to on-campus education, but can act as supplemental to undergraduate medical education. Face to face contact between teacher-student, student-patient and student-student is an essential part that cannot be compromised. Despite limitations much can be achieved through online medical education. So we should focus our energies and resources to train our staff and students for such challenges and to

find out new options and utilize available alternatives for better learning.

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