

Challenges and opportunities in dermatology education in COVID-19 times

Talat Masood Akbar, Haroon Nabi

Department of Dermatology, Lahore Medical and Dental College, Lahore.

Dermatology was enthusiastically moving into spring 2020, when realization of the highly contagious COVID-19 pandemic ravaging neighboring and distant parts of the world registered. The leading recommendation for control of spread of infection required social distancing¹, so all educational institutions in the country were precipitately closed down on March 13th by government orders.² All Medical and Dental Colleges in the country, both undergraduate or postgraduate were shut down; so were departments of Dermatology, ENT and Eye in all hospitals, as they were considered non-essential services in COVID-19 conditions, to reduce the load of people visiting hospitals and enable social distancing.

There are 114 Medical and Dental Colleges registered with Pakistan Medical and Dental Council³ and 49 institutions recognized for postgraduate training in dermatology by the College of Physicians and Surgeons⁴, Pakistan. Hence, the lockdown potentially effected dermatology teaching and training for thousands of candidates.

Medical education follows a highly structured curriculum for producing quality outcomes. Students follow inviolate competency-based

Address for correspondence

Dr. Talat Masood Akbar,
Associate Professor,
Department of Dermatology,
Lahore Medical and Dental College, Lahore.
Email: dr.talatakbar@gmail.com

course work, while achieving outcome measures needs knowledge and practice of skills and attitudes.⁵ Clinical work requires contact with real patients to practice the art of detective history-taking and application of background knowledge, in a supervised setting.⁶

This standardized course work was abruptly disrupted by the lockdown. These were very challenging circumstances, with uncertainty about the length of confinement and a need to think 'out of the box'. It left institutions, educators and students alike in a quandary about ways to proceed forward towards utilizing time in the most productive manner and meet the needs of the situation. It was at individual institutions and educators discretion to make decisions for the benefit of their students. The MBBS Dermatology course involves lectures and clinical rotations. Postgraduate training involves a heavy academic component and intense clinical work including procedures. The only logical option was to migrate the academic course work online, while the clinical component was paused temporarily.

Most of the Medical colleges did not have regular online teaching programs already in place which were pre-planned and designed for the purpose. They were propelled into an 'Emergency Remote teaching Mode', which is defined as 'a temporary shift of instructional delivery to alternate delivery mode due to crisis circumstances'.⁷

Medical institutions with well-established Information Technology (IT) departments fared better than those that didn't. Poor IT infrastructure is considered a barrier in medical education, especially in developing countries.⁸ Those better equipped had the personnel and infrastructure to explore and guide their faculty and students in utilizing latest technology for remote learning. They could steer the technologically challenged through intricacies of the latest video conferencing tools like Google classroom, Microsoft teams, zoom, google meet and use of virtual platforms like YouTube to deliver and upload lectures, with a choice to be accessed later.

Faculty were challenged as rarely before, as they had varying levels of digital fluency. They were jolted out of their familiar comfort zones and had to rapidly identify and adapt to helpful technological solutions to teaching. It opened up a whole new world of virtual facilitation, dissemination of knowledge and communicating with their students.

Teachers and mentors employed varying methods for sharing of knowledge: delivering interactive lectures via video conferencing with hundreds of students in a class, small group discussions, tutorials and flipped classrooms. Quizzes, case scenarios, multiple choice questions, matchings were incorporated for assessments. There were many helpful resources available online.⁹

The students, in this digital age, are very tech-savvy. They mostly took to online learning as a duck to water. They were very familiar with online platforms and chat forums like Facebook and WhatsApp for socializing and entertainment, so easily shifted focus to educational use. Classroom attendance soared, though it's debatable as to how many were fully attentive or even present at the other end! As in the west,

students here have a preference for online pursuit of previously recorded lectures and use of study aids, while minimizing classroom interaction with teachers.¹⁰ They definitely missed out on polishing the art of history taking with enquiring conversation, and practicing clinical skills and attitudes with real patients in a supervised setting. It will have to be addressed when we reopen.

On the bright side, the uncertain conditions brought forth some gems in dermatology teaching. Senior Professors and faculty in Dermatology prepared and delivered stellar interactive lectures to their MBBS students. Our experience at Lahore Medical and Dental college was very enlightening. The esteemed Principal and faculty were highly motivated, the Information Technology department well equipped and manned. They had been registered with google for years as an institution, so immediately made arrangements for utilizing Google Classroom and Meet apps. Each teacher and undergraduate student were issued an official, dedicated, secure, personal ID, email which was the only possible connection to log in to the classroom portal and register their presence. All scheduled dermatology course lectures, assignments and assessments were successfully conducted online. The main drawback was inability to assess psychomotor clinical skills.

Postgraduate academic work was tackled through zoom classes. About sixty classes were conducted, which involved discussions and assessments covering a good chunk of the specified course.

Many senior Dermatology mentors started holding interactive zoom lectures and opened them up to include all interested dermatology postgraduate trainees in general. A series of lectures clarifying concepts in diseases and

histopathology were uploaded on YouTube. These will be a treasure trove of knowledge for years to come. Innovative preparatory courses in basic concepts were shifted online and offered multiple times, and were very helpful for new entrants to dermatology. A number of free webinars were conducted to keep the dermatologists connected and updated.

There were numerous pitfalls in online learning efforts. Socio economic factors played a decisive role. Students and teachers who did not have high-performance devices and tools were left out of the loop. Like books, these have by now become indispensable in pursuit of higher education in medicine. Libraries and internet cafes could fill the vacuum in normal circumstances, but were not available under COVID-19 conditions.

Geographical location was another factor which adversely affected those following an online course. Candidates in rural areas who had no recourse to high bandwidth internet connection, were unable to participate in the video conference classes or download lectures. The multiple hours of electricity load shedding compounded problems.

In conclusion, conditions projected us into uncharted waters, but a new world of opportunities has dawned. It's time for the dermatology educationists to assess and analyze the experiences we went through, to plan for a future of blended learning, integrating virtual educational opportunities into the traditional methods of knowledge transfer for better learning. The lessons learned can also potentially be implemented in any future crisis situations and incorporated in routine academic activities.

References

1. 2019 Novel Corona virus-important information for clinicians. Del Rio C, Malani PN. *JAMA* 2020. doi:10.1001/jama.2020.1490.
2. The News. Available from <http://www.thenews.com.pk>.
3. Pakistan Medical and Dental Council. Recognized Medical and Dental Colleges. Available from <http://www.pmdc.org.pk/AboutUs/RecognizedMedicalDentalColleges/tabid/109/Default.aspx>. Accessed on 20th September, 2020.
4. College of Physicians and Surgeons, Pakistan. Available from: <https://www.cpsp.edu.pk/accredited-institutes.php?ref=02RNo04I1TbR58imWmvrkw60pCVS4xLhvahpiVD0jWM%3D>. Accessed on 20th September, 2020.
5. Frank J, Snell LS, Cate OT, et al. Competency-based medical education: theory to practice. *Medical Teacher* 2010; **32(8)**: 638-45.
6. Wayne DB, Green M, Neilson EG. Medical education in the time of COVID-19. *Sci Adv*. 6, eabc7110 (2020).
7. Hodges C, Moore S, Lockee B. The difference between Emergency Remote Teaching and Online Learning. Available from: <https://er.educause.edu/articles/2020/3>.
8. Lakbala P. Barriers in implementing E-learning in Hermozgan University of medical sciences. *Glob J Health Sci* 2015; **8(7)**: 83-92.
9. Pappas C. The 10 Most Popular Free Online Courses For eLearning Professionals. December 16, 2014. Available at <https://elearningindustry.com/10-most-popular-free-online-courses-for-elearning-professionals>. Accessed 20 August, 2020.
10. Maham S, Ghumza F, Shaheryar K, et al. Preference of Use of E-Learning in Medical Education among Undergraduates of King Edward Medical University, Lahore, Pakistan. *Ann Community Med Pract* 2018; **4(1)**: 1033.