

Learning in the age of COVID-19

*Iftikhar Qayum, Narmeen Hashim, Mehwish Ashraf***ABSTRACT**

COVID-19 disturbed educational routines and activities in an unprecedented and unanticipated manner. Institutions scrambled to maintain a foothold on the fast-deteriorating academic environment, and both teachers and students had to develop makeshift arrangement in a hurry. This editorial narrates some of the main disruptions and the coping mechanisms needed to counter them.

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INTRODUCTION

The global disruption of routine life caused by the COVID-19 pandemic included education as one of its prominent victims.^{1,2} Initial reports indicated the need to stop viral transmission by the wearing of face masks and practicing social distancing, so that droplet cross contamination could be minimized from subclinical infected persons.³ These measures required strict compliance to be effective. However, it soon became apparent that compliance was far from easy, and viral infection rates continued to soar globally.⁴⁻⁶ Thus, further steps were necessitated, that included lockdowns and 'smart' lockdowns, where offices, business centers, educational institutions, and many other areas where crowding was routine, were not allowed to remain open.

By and large, COVID-19 was known to affect the elderly and infirm in a serious manner, sparing the healthy adults and youth; in fact, it became known that students could be unaffected carriers of the virus and could transmit the disease to their elders at home after getting the virus from their schools, colleges, and universities. It became mandatory to disrupt educational classes and students were sent home to study at their will, as best as they could, given the syllabus and learning assignments, as it was initially considered a short-term exercise that would soon revert to normal.

As the weeks prolonged to months, serious concerns arose about students missing essential learning time, as well as their scheduled examinations; many of these had to be rescheduled or even terminated, and in some instances students were given promotions without having to sit for examinations. Nevertheless, it dawned on the authorities that some level of medium- or long-term strategies had to be devised to allow a continuation

of education and examinations, because the duration of the pandemic could not be accurately predicted.⁷ The only plausible and feasible solution was to develop online learning as the main mode of continuing the educational momentum, supplemented by self-study mode adopted by students.

Educational institutions that could easily implement this solution were elated, and quickly developed online systems, trained their faculty and students in the use of relevant software and hardware, and started online classes as a routine. Other institutions, not as financially healthy, developed varying degrees of online learning facilities; yet others could not afford to do so. Thus, the problem was solved only in part, and for the rich institutions at best. Even then, online education had its drawbacks; limitations of time, internet connection strength and interruptions, lack of optimal teaching modalities for online education, incrementally fading student interest, continuous use of computer screens, decreased ability to engage in peer learning, and even the lack of the physical environment of schools, colleges, and universities seriously affected the quality of education offered through online systems.^{2,8}

Medical education suffered in other essential categories. How were students to go to the hospitals for bedside teaching when the hospitals were understaffed, had few patients, and mostly were converted to COVID hospitals? Online teaching was no substitute for clinical teaching that required contact of students with patients and their clinical teachers.⁸⁻¹⁰ There was no way out of this dilemma, because even if strict precautionary measures were adopted, there was no guarantee of safety, and some level of exposure could happen. As such, the clinical competence of medical students was likely to remain suboptimal, unless reinforcement was done at some later date after the acute pandemic threat was over. A few innovative colleges made good use of their Clinical Skills Centers where they conducted clinical training in small batches of students, by rotation, with simulated patients; however, the shortcomings were obvious in the lack of real patient-based teaching of students possible only in actual hospital settings.¹⁰ However, despite a lack of total satisfaction with outcomes of enforced online education, institutions opted for continuation of Blended Learning for the future.¹¹

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Author Information

From: Department of Medical Research, Rehman Medical College, Peshawar, Khyber Pakhtunkhwa, Pakistan

Dr. Iftikhar Qayum

Director Medical Research
(Corresponding Author)

Email:

iftikhar.qayum@rmi.edu.pk

Ms. Narmeen Hashim

Senior Research Officer

Ms. Mehwish Ashraf

Research Officer

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The tremendous increase in global online learning as the only viable option created a huge demand for online software programs and a new market and economy ensued.¹² Perhaps the biggest share of the online learning market was taken up by the software Zoom, as it was considered the most user-friendly and easy to adopt in addition to having useful features that enabled teacher-student interaction and facilitated online learning. Other than educational input, Zoom was used for online meetings, conferences, seminars, corporate communications, and all other modalities where face-to-face events had to be transformed to online events. Other lesser used software included GoToMeeting, Google Meet, Google Classroom, Microsoft Teams, Edmodo, and Moodle, among others.

Some research studies done on student satisfaction with the online learning experience during COVID-19 indicated that by and large, they accepted this new modality, and adapted to it as a source of learning, despite a preference for face-to-face learning.^{9,10} Some of the acceptance could relate to the crisis itself, so that any mode that allows a semblance of normality is acceptable compared to doing nothing. Other than that, students being more tech-savvy than their teachers were comfortable with the use of online systems and quickly learned how to use them optimally. It remains to be seen how much of online learning is retained as Blended Learning once the covid crisis is over.

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