

Editorial

The COVID pandemic: Lessons for academicians and institutions today and tomorrow

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Since the start of the COVID-19 pandemic, the challenges to the education systems have been the greatest ever faced by the world community [1]. Over 1.5 billion students and youths worldwide have been affected directly or indirectly by academic institution closures [2] and this has left its mark on the academic world [3]. In Nepal, the academic institutions remained closed for a long time during the lockdown and started to manage alternate ways of teaching with the prolongation of

lockdown. The government institutions were affected mainly in two ways: firstly, they were turned into quarantine stations, and secondly, there were limited facilities including internet access, computer devices, and a skilled workforce [4].

Globally, considerable modifications in medical education approaches took place in response to the COVID-19 pandemic. Ceasing of the physical presence of students and teachers in the classroom for teaching and learning entailed a switch to online teaching-learning and virtual education [5,6]. Like many educational institutions across the world, in March 2020, medical schools in Nepal suspended in-person classes and clinical rotations for medical students to comply with physical distancing and lockdown requirements [7,8]. To catch up with the academic calendar starting in mid-April 2020, the universities and deemed to be universities instructed their affiliated medical colleges to start online classes [9]. Academicians and students daily learning activities and schedule from "traditional"

lectures abruptly shifted to online classes using the Zoom video communications tool and other online applications [10].

With the availability of a sea of platforms and online educational tools, both the educators and learners faced frequent hiccups while using it or referring to these tools. For professors and students who were not accustomed to using computers and the internet, the innovative method of using the internet to attend lessons and the difficulty in accepting the application as a teaching modality were quite novel. Dropped calls, pauses, and poor audio or video quality were significant problems that frequently disrupted classes. Students had less supervision and more distractions while learning online, making it difficult for them to maintain their motivation levels [11]. The unanticipated workload and responsibility imposed on teaching faculty members with extended Zoom sessions, bad internet, and technical issue were problematic. Also, many teaching faculties at medical, paramedical, higher secondary, and pre-schools especially in private organizations had lost their jobs. During the pandemic, academicians universally experienced psychological stress [12].

Medical education uses a system of continuous assessment throughout the academic year. Assessment during online learning was a great challenge. Student assessments were carried out online, with a lot of trial and error, uncertainty and confusion among the teachers, students and parents. Regular entrance exams for medical schools, semester/annual exams, and exams for medical licenses were all postponed. Even before graduating, the government of Nepal

started asking for assistance from medical students by encouraging them to join Emergency Medical Deployment Teams to fight the COVID-19 pandemic, compromising their academic pursuits. Due to the indistinct clarity of the classes, students in Nepal had not responded favourably to digital education and were anxiously anticipating the start of in-person classroom instruction soon [13]. The availability of educational materials, improvement in students' technological skills and time savings were the most important benefits of distance learning during COVID-19 pandemic. However, the main obstacles were internet problems, poor communication and deprivation from real clinical practice [14].

In the modern era, assessment is linked with learning and skill development of the students, rather than grades and marks [15]. The online teaching model is difficult and challenging in Nepalese context and to provide anatomy dissections, bedside clinical teaching, laboratory skills, problem-based learning, and community field learning [11]. Several potential drawbacks to online learning, including the organizational readiness, student attentiveness, crisis management, language skills, technical support, team effort, and accessibility to course materials, delayed feedback and assessment were noticed [12].

Medical education continues to be fundamentally based on practical experiences and face-to-face interactions, as it is in all other countries. The pandemic seriously disrupted academic research in many research areas: archives and libraries closed their doors, clinical studies and trials were halted, fieldwork and expeditions were cancelled, and laboratories paused

experiments. In certain instances, the crisis reduced the quality and quantity of data and data-gathering had to move from face-to-face to online [16]. Additionally, there is little data to back up the adoption and application of digital technology in the training of health professional and medical education [13]. Further, Nepalese academic institutions may face challenges regarding clinical skills development, research activities, and developing proper attitudes and behaviors toward patients through distance learning [17]. On the other hand, some medical educators have proposed integrating traditional face-to-face learning with online virtual learning which will be more long-lasting and sustainable over time [18].

A second COVID-like pandemic is predicted to have a 27% chance of happening during the next 10 years [19]. Despite several initiatives to draw lessons from the worldwide crisis over the course of the last three years and debates on international treaties to improve pandemic preparedness, the global response has remained lackluster and incoherent [20]. According to the most recent research and published evidence on medical education during pandemics, the effects of a pandemic have been contentious, unprecedented, challenging and pervasive. The impact of pandemics on the process of medical education has only been evaluated in a small number of publications, and those that have been published are based on insufficient institutional experiences, making it impossible to universalize recommendations about the future of medical education [21]. However, the digital transformation in academics that occurred during the pandemic might be viewed as revolutionary.

The pandemic has tinted medical academics and academic research, so new skills are required. Despite the challenges experienced by faculty and students it is evident that online learning will be sustained, and education will become more hybrids. The educational pedagogy should incorporate digital skills in medical education and broadly in Nepalese educational system itself. Digital skills rather, should be integrated into the teaching and learning process of all subjects [22]. It is necessary to provide appropriate faculty training and effective coordination. Learners must also be motivated to acquire digital competency to stay relevant in the modern world.

Instead of arguing for each alternative separately during pandemics, a compromise between fully virtual learning at home and direct teaching in classrooms/hospitals should be discovered. Undoubtedly, this undertaking will lead to more innovations, responsiveness, and experimentation in areas including problem-based learning, teaching clinical skills, evaluating students, and mentoring. Also, there is need to provide models to accommodate the contemporary changes in online learning, review the process of digital transformation of institutions, design more scalable and personalized online learning models, design online learning model that will reduce the workload on the instructors and redesigning the learning process. To maintain the standard of medical education, some curriculum components like skills, work ethics, teamwork, and research should not be changed. While patient care and treatment remain extremely desirable, a careful consideration and specific modification is vital to accomplish quality

medical education and better health service in future crisis.

The pandemic provided an opportunity to establish the right conditions for a "social contract" between science, policy, and society, based on mutual commitment and respectful dialogue about the role of science and scholars in policy making and policy communication that will continue to monitor mid- and long-term impacts of pandemic, efficient mitigation measures, and fostering changes in researchers, academic careers, and research practices and the academic community. In the future, it will be vital for medical schools to impart their best practices, information as well as experiences on medical education during instances of crisis. The education system and medical schools must make investments in the information and communication technology (ICT) and effective pedagogy and teachers' professional development. Medical academia needs to be prepared to address novel threats, and the education system, educational technology, government policy makers, and all stakeholders need a strong will to be focused on addressing future pandemics reminiscing an old saying '*there is a little good in all evil*'.

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