

E learning: An experience at Al Nafees Medical College and Hospital

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In the epoch of encroachments in modern science, electronic learning i.e. E-Learning or online teaching by internet or web based learning, harbors a great significance. The start of this modality was from mid-90s¹. But was evinced in 2012 by the blooming of massive open online courses (MOOCs)². This promotes accessibility for cardinal information with ease. But with all these advancements, still many challenges are there in the field of medical education. A colossal debate is there regarding the role of online teaching in order to get desired learning outcomes of undergraduate medical students. Many studies are of the opinion that in order to keep up with the advancements in modern science, today's doctors must be well aware from use of digital information¹. The comparison of online teaching by using modalities with offline teaching or traditional teaching in a classroom revealed that it does not have the time and space limitations. While traditional teaching engrossed that teaching and learning should take place at the same time and place. Nutshell is that, pros and cons of both will be there always^{1,2}. The ever changing learning environment has forced this century learners remain digitally literate³.

Knowledge skills and attitude are the three pillars for developing competency amongst the medical students. Acquisition of knowledge has been through books and teachers over a long period of time. Medical graduates of this century require the source of knowledge to be up to date. Now the computers have taken charge of the whole world and text books have been replaced by electronic books i.e E-books.

The technology is available ranging from desktops to palmtops and learning tools, which are available in huge numbers. The unveiling of many mobile devices, web 2.0, web 3.0 and more recent web 4.0 along with an outburst of social media technology is continuously alarming the minds of learners to join the race of updated information. The commonly used apps includes Zoom, Moodle as learning management systems, Google meet, Microsoft Teams, WebEx, Edmodo Adobe connect, and and Skype for business video conferencing etc. All these are appropriate ways to achieve learning goals. The newly designed sophisticated mobile phones and laptops catch the eyes of learners and also captivated their minds. But in low socioeconomic countries is not as feasible as in the western world^{4,5}.

This E-Learning modality was there since years but emerged as front line in COVID 19 Pandemic. In specific scenario educational institutions were closed around the Globe to prevent the spread of infection. To pact with this crisis situation preparedness plans of universities were formulated to use advanced technology for E-Learning, so that learning would not be interrupted⁶. The field of medical education has emphasized the use of multiple pedagogical tactics including the teacher-centered model for face to face lectures in classrooms, online, distance or for better understanding of concepts. The E-Learning or online learning is defined as "the use of electronic technology to convey, support and augment learning via online delivering of content". It facilitate provision of "more effective admittance to a broader scope of information emphasizing the self-directed learning approach". In another definition it is considered as 'an educational intrusion arbitrated electronically via the Internet'. The necessity for acquisition of updated knowledge and skills in field of medical education can be acquired by becoming 'digitally literate'. This term implies 'the aptitude to read and construe media by digital manipulation, in view of gaining new knowledge'. Contrary this transition is never an easier approach^{7,8}.

The concept of sophisticated terms like flipped classrooms and blended learning are further making the selling of more popular. E-Learning is also a unique source of accountability in which the opportunity to trail the employee's progress, scores, and feedback, are possible. Wikis, blogs and podcasts are all freely available and are reusable. In view for the provision of students' facilitation, many challenging tasks used to come in line. The highlighted amongst all is the stress on network traffic, which results in meagre internet connectivity, Wi-Fi and access to physical infrastructure. Other barriers are also there which restrict the development and implementation of online learning tools i.e lack of infrastructure, advanced technology, lack of time and busy schedule of faculty all hinders E-Learning. Communication through physical presence which is loved by the human beings is perhaps the greatest disadvantage of E-Learning. Concept of team work is partially jeopardized by the form of E-Learning.

Like the state of Global insurgence due to COVID 19 pandemic, Pakistan also adopted a transition from on campus to online teaching. In view to prevent the spread of infection, social distancing and lockdown protocols, online teaching by using ZOOM app and learning management system (LMS) was adopted at Al Nafees Medical College and Hospital (ANMCH), Isra University Islamabad Campus. Starting from the lockdown announcement day by Government i.e 14th March 2020, within two to three days time online teaching was started.

The LMS usage was already a part of academics at ANMCH since 2012. Within couple of days for ZOOM usage the updated guidance was provided by both of them to the entire Faculty in view to sort out trouble shoots. However the technical support from information and technology i.e IT department remained there always. The objectives of opting this modality was to facilitate students learning for successful achieving the yearly predefined outcomes and timely completion of academic year.

The five months experience of teaching and learning modality at ANMCH has proven prolific outcomes. Large group interactive sessions (LGIS), small group discussions (SGDs) and skills in break out rooms, were the commonly used teaching and learning strategies. The power point presentations and details of all learning resources were uploaded on LMS by LMS coordinator well before the scheduled time of session. For the skills, demonstrations were done by using archive videos and simulated patients along with provision of handouts. Besides all this, what's app groups for faculty and students of all classes were also created to have rapid liaison. The predefined outcomes of modules and clerkships were successfully achieved upon serial end modular and end clerkship online assessments. In view of table of specifications, multiple choice questions (MCQs), open book structured answer questions (SAQs), open book structured essay questions (SEQs), and batches wise assignment tasks to improve team work were the commonly used assessment strategies. Mostly assessments were taken on LMS. Even the schedule for blended learning has been finalized after the opening of lockdown situation. We magnificently attained what could have been thought for quality assurance in medical education in an academic year by using E-Learning teaching strategy.

In Pakistan though in budding stage, but yet proven effective to achieve the desired learning outcomes in current scenario. Therefore, in order to coup up with the challenges of advancements in science and technology, it must be the part of teaching and learning strategies in the curriculum of Pakistan as well.

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