



Perception of medical students regarding E- learning and related depression during Covid-19 pandemic

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This is to certify that we have examined the above Master's thesis and have found that is complete and satisfactory in all respects, and that all revisions required by the thesis examination committee have been made

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Summary

In early 2020 the Covid-19 caused by the (SARS-COV-2 virus) pandemic shocked the world almost bringing to an unprecedented stop. As cities were in lockdown and educational institutions were closed indefinitely all the students including medical students experienced dramatic effects of the first wave of the COVID-19 pandemic in the first few months of 2020. In this crisis, the need to encourage E-learning in the modern world of education become clear. On campus classes were moved online, semesters were postponed or examinations adjusted. This unprecedented situation demanded an urgent need for in-depth studies about how this pandemic had impacted students' lives around the world. Here we report a descriptive cross-sectional study that was conducted between October 20, 2020 to November 10, 2020 at 3 medical colleges of Chattogram including Southern Medical College and Hospital (SMCH), University of science and technology (USTC) and Chattogram International Medical College (CIMC). Undergraduate MBBS students of all levels participated in the study. A structured questionnaire was developed and shared among the participants by using social media. Total 320 responses were received among which females were predominant totaling 186 (59.2%) and 128 (40.8%) males. The average age was 21 years and ranged between 18-24 years. A total of 287 (88.5%) of the students live with their family while 36(11.5%) of them living away from their family. Overall 77% of students have a negative perception towards E-Learning, 90.2% of people use smartphones to attend online classes and 97.5% of students use zoom as a platform to conduct their online classes, 60% of medical students usually face difficulty in their internet connectivity which is a large population actually, only 13% students mentioned that sound and visibility clear during classes, 40% of students usually face audio visual problems most of the time and another 40% sometimes and the 7% never gets clear sound and visibility during their online classes. Only 5% students mention that they never face difficulty in their own internet connectivity, rest of the students are facing the problem. The most used type of interaction was voice chat at 177 (56.5%), video chat 102 (32.6%) and 34(10.9%) uses text chat. Analysis revealed that, 55(17.6%) students feels online classes were never effective for their study, while 143(45.7%) students feels sometimes it is effective, only 42(13.4%) students feels it is always effective. Most students stated that a good internet connection is expensive and the ones that they can afford are not good enough for classes, 167(53.2%) students do not have an uninterrupted connection during class, 147(46.8%) get quality internet connection in

class time and that 156(49.5%) of them use Broadband Network while 159(50.5%) of them use mobile network, therefore it is difficult for them to attend live lectures or download files that the teacher gives them. The switch to online classes closed libraries, changed communication channels for teachers and administrative support, new assessment methods, different workloads and performance levels etc. and social life e.g.- closed dorms and therefore moving back to home, no meeting with friends, university colleagues or relatives, no parties, no travelling, remaining trapped abroad etc., as well as their personal financial situation, like loss of student job, worrying about their own financial situation, future education and career makes them stressed and their emotional health (fears, frustrations, anxiety, anger, boredom etc.) deteriorates so it made 90% of them lose motivation to study during the pandemic; meanwhile, emotional wellbeing has a crucial role to play in combating the pandemic. This implies that government, health professionals, higher education institutions, student organizations and NGOs should all collaborate on the process of designing timely and efficient psychological and financial support services for students. Majority of the students preferred face to face teaching over e-teaching. The key outcome of the result shows that the students are not yet ready for e-learning.

Abstract

Background

The rapidly evolving Covid-19 pandemic has challenged health systems and created socioeconomic devastation worldwide. Medical student education has not been immune to these disruptive forces (Hueston *et al.*, 2020). Due to its contagious nature, COVID-19 demanded containment and enforced isolation that tremendously affected personal interaction of teachers and students. In the absence of traditional classroom teaching and one to one interaction, computer based learning has emerged as closest substitute for offline teaching. Against such a backdrop, it is pertinent to examine the medical students' perception and readiness about online learning system adopted during the ongoing COVID-19 pandemic.

Objective:

The purpose of this study was to determine the perceptions of medical students towards e-learning during the first wave of COVID-19 crisis.

Methods:

A descriptive cross-sectional study was conducted at Southern Medical College and Hospital, Institute of Applied Health Sciences, University of science and technology, Chattogram International Medical College. MBBS students of all levels participated in the study. A self-administered questionnaire was developed. The questionnaire was shared by using online platform (Messenger app).

Results:

Total 320 responses were received 128 males and 186 females participated in the study. Among them 84 were first year students, 48 were second year students, 110 were third year students, 39 of them were fourth year students and 34 of them were fifth year students. Overall 77% of students have a negative perception towards E-Learning, 90.2% of people use smartphones to attend online classes and 97.5% of students use zoom as a platform to conduct their online classes.

Conclusion:

Majority of medical students had a negative perception towards E-learning during the lock down situation. There are many challenges considered as inhibitory for utilizing electronic technologies for medical education. So, challenges of E-learning in our setting should be systematically evaluated and that effective strategies should be developed to overcome their inhibitory effects.

Keywords:

Covid-19, face to face learning, E-learning, medical students, Perceptions, Mental health, stress.