

Challenges To E- Learning Among the Medical Undergraduates in Ahmedabad

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Abstract

Introduction: E – learning is defined as an educational system that delivers information using information technology resources such as internet, intranet, satellite broadcasts and multimedia applications. Anywhere-anytime feature of e-learning is beneficial in the times of crisis-like situation. Although it offers many advantages but the challenges associated with this are also manifold.

Methodology: This was a cross sectional study conducted at a government medical college in Ahmedabad, Gujarat. Study participants consisted of medical undergraduate students (MBBS) of first to final year, who experienced online learning during their academic sessions. Google forms were distributed to students and responses collected were analysed.

Results: Around 2/3 students still prefer classroom teaching than online classes. Reasons for the same are not only acceptability but more importantly technical ones faced by the students. Challenges identified are-technical problems, information overload, inability to communicate with teachers personally, lack of motivation and evaluation, digital illiteracy, unequal distribution of ICT infrastructure etc.

Conclusion: New and improved online learning platforms are emerging with better user interface. Along with technology, our teaching methods also need to evolve to engage students for more efficient utilization of online learning.

INTRODUCTION

During the COVID -19 pandemic, the momentum of education has shifted from conventional classroom to online learning. E – learning is defined as an educational system that delivers information using information technology resources such as internet, intranet, satellite broadcasts and multimedia applications. E- learning consists of four components: instructor, learner, course and information and communication technologies (ICT)[1]. It is student- centred and offers a great deal of flexibility in terms of time and location. Anywhere-anytime feature of e-learning is beneficial in the times of crisis-like situation. Technology provides innovative and resilient solutions at times of crisis to combat disruption and helps people to communicate and even work virtually without the need of face-to-face interaction. Although it offers many advantages but the challenges associated with this are also manifold. Some of the challenges identified from previous studies are lack of online skills, lack of appropriate support from the technical teams, traffic overload in online educational platform, lack of suitable materials for learning, inadequate learning environment at home. This study aims to identify challenges and issues of e learning faced by medical students and to provide appropriate solutions for such issues.

METHODOLOGY

This was a cross sectional study conducted at a government medical college in Ahmedabad, Gujarat between the period of April 2020 to September 2020. Study participants consisted of medical undergraduate students (MBBS) of first to final year, who experienced online learning during their academic sessions. The study excluded students who had never participated in online classes. The students were taught online through a virtual learning environment (VLE) and Webex application. A pre- tested and semi-structured questionnaire was made. The questionnaire was validated by conducting a pilot study among 20 MBBS students. Google forms were distributed through whats app groups of undergraduate students. Data including demographics, student’s experiences and issues faced during online classes was collected. No personal identifiable information was collected from participants. The responses obtained were analysed using Microsoft Excel. Frequencies and percentages were presented in tabulated form.

RESULTS

We obtained responses from 510 students. About two third of the participants were males and one third were females. Students took online classes from home. Around 69% participants resided in urban areas while about 73% students had good internet access at their place of residence. Around 70% students had no prior experience of participating in online classes before COVID-19 pandemic.

Figure 1- Accessibility of internet

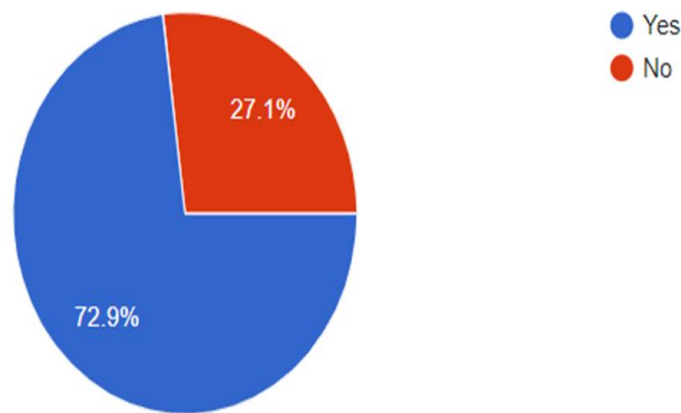


Figure 2- Prior experience with online classes

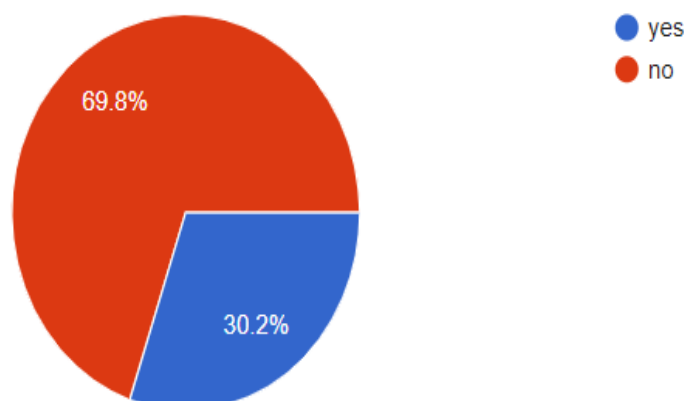
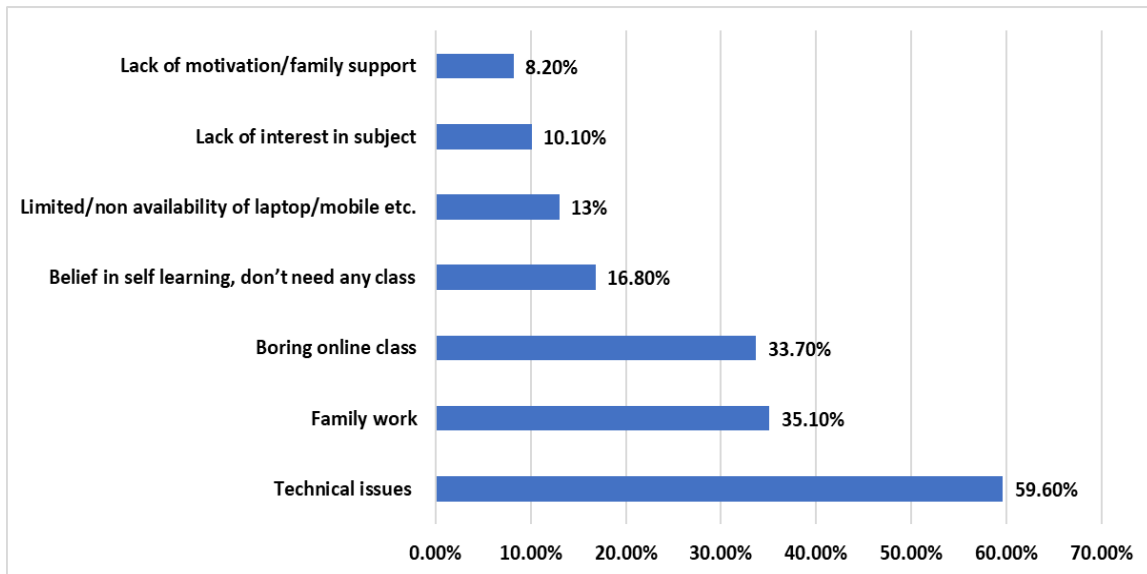
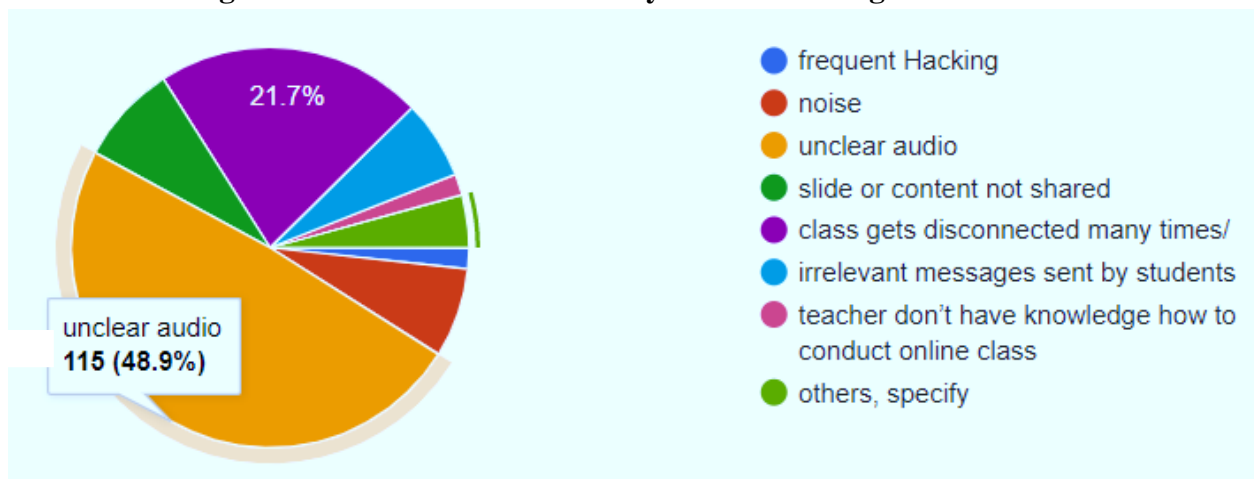


Figure 3- Perception of experience with online learning



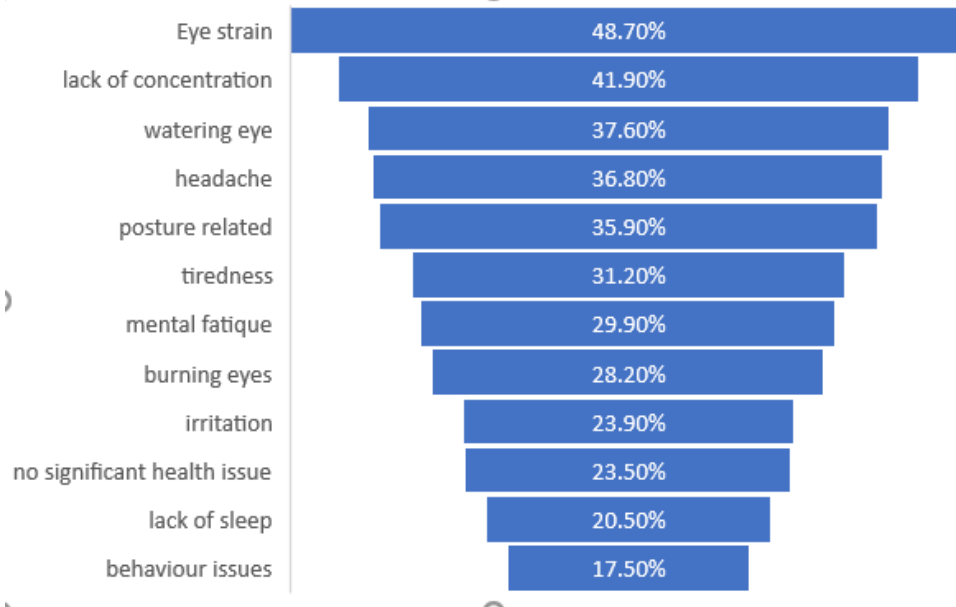
We asked regarding experience with online learning and participation in class activities at home. Around 8% students didn't feel motivated by themselves or by family to attend classes. Around 35% students reported that they had to cater to household work, so they didn't have much time left and 13% faced limited availability of mobile/laptop due to electricity issues. About 10% students didn't attend the classes of subjects they lack interest in. Overall, 33.7% students found online classes boring, 16.8% students believed in self-learning and didn't feel any need of online classes at home (Fig 3).

Figure 4- Technical issues faced by students during online classes



But the most common (59.6%) problem faced by students was technical issues. Nearly one-half of the students reported unclear audio as a major technical issue during the class followed by frequent disconnection of classes, difficulty in content sharing and disturbance caused by other students by making noise and sending irrelevant messages during class (Fig 4). Technical problem was the major factor due to which around 60% students found it difficult to attend online classes.

Figure 5- Health related issues experienced by students.



In this study, health issues experienced by the students after they started attending online classes and which were not present before were also identified. Eye strain was reported as the most common health issue (48.7%) by majority of the students followed by lack of concentration, watering eyes, headache, posture related issues and fatigue (Fig 5). Out of 11.6% students who consulted physician for these issues, 4.3% were taking treatment.

DISCUSSION

During COVID pandemic, students have experienced a sudden shift from classroom to online education. E-learning offers many advantages over classroom like flexibility in time and location, catering to wider audience including overseas, immediate feedback etc[2]. But it still has to face a lot of weakness and challenges to face. Although students admitted that online classes during covid pandemic have changed their opinion about e learning, which they didn't use to consider as an option prior. But around 2/3 students still prefer classroom teaching than online classes. Reasons for the same are not only acceptability but more importantly technical ones faced by the students. Similar issues identified from other studies are-technical problems, information overload, inability to communicate with teachers personally, lack of motivation and evaluation, digital illiteracy, unequal distribution of ICT infrastructure etc[2-6].

The following solutions are recommended for these issues. For technical issues, though much cannot be done on students part as the learning platforms are new and still evolving. But students can be oriented how to use the online platform. Also, institutions and teachers must upgrade their technical knowledge and skill. As in home, the distractions are many topped up with lack of sustained motivation to attend the classes, so lectures can be made interesting by using videos, communicating and evaluating students during the classes. Contents and resource materials should be provided to students in order to encourage self learning. Any case of hacking must be reported to cyber crime cell. Appropriate positioning of the device/laptop must be done to reduce eye strain, posture related issues and other health problems.

CONCLUSION

E learning in initial phases many pose some challenges but it has a long way to go. Wider reach among audience and flexibility are the major advantages. New and improved online learning platforms are emerging with better user interface. Along with technology, our teaching methods also need to evolve to engage students for more efficient utilization of online learning.

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