

## Perspectives of Medical teachers on E learning of MBBS students in Covid 19 pandemic

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### Abstract

The coronavirus disease 2019 (COVID-19) pandemic led to far-reaching restrictions of social and professional life, affecting societies all over the world. To contain the virus, medical colleges had to restructure their curriculum by switching to online learning. This study was conducted to find out the faculty's perception about these live online classes conducted for 1st year MBBS students in lockdown period of COVID-19 pandemic in India. This is questionnaire-based study. Questions were prepared with help of Google forms. The google forms were sent to 90 faculties of different medical colleges. Faculties were involved in online teaching classes during COVID-19 pandemic lockdown period. Questions asked to the faculties regarding online teaching included various E learning tools and methods used, teachers perspective on advantages and disadvantages of E learning. Methods used for online classes were Zoom, Google classroom, Live webex, Whatsapp group, discussion, Telegram App, Microsoft Teams, Skype. Advantages of online classes were its best alternative for physical mode classes, Ability to stay at home in pandemic, Comfortable surroundings, Teacher centered teaching. Disadvantages of online classes were technical problems, Lack of Student –Teacher interaction, Lack of proper students assessment, Difficult to demonstrate practicals, Lack of Students Discipline. E-learning is a powerful tool for teaching medical students. However, successful implementation of online learning into the curriculum requires a well-thought-out strategy and a more active approach.

**Keywords:** E learning, Covid 19 pandemic, Perspectives of Medical teachers.

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### Introduction

Currently, the world is responding to a pandemic of contagious respiratory disease caused by a novel coronavirus, named COVID-19 [1]. On March 11, 2020, the

World Health Organization declared the coronavirus outbreak a pandemic, i.e., the worldwide spread of a new disease [2,3].

The subsequent implementation of social distancing (i.e., increasing the physical space between people) during the COVID-19 pandemic has forced colleges and universities to empty their classrooms and keep the students away from the institutions [4]. Consequently, there has been a general shift from traditional face-to-face instruction to online teaching [5]. Most institutions, have switched to distance learning in the simplest and most convenient ways possible, including conferencing platforms, email, and phone. There have been two main reported predictions about the potential impact of COVID-19 pandemic on online education. Some experts have predicted that the COVID-19 pandemic would adversely impact online education for several reasons. Firstly, they felt that the transition to online education can be challenging, even when the transitioning process is given enough time [6]. Besides, during the COVID-19 pandemic, there is not a single part of the economy that has been unaffected. As a result, college students have become financially vulnerable [7]. Some of the students are worried that they will no longer be able to afford college after the pandemic. Also, being confined at home, some of the faculty and students have been busy trying to manage their children, other elders, or siblings in the house who are also not in school. Today's students are highly interested in innovative teaching methods including online learning, networked learning, simulation-based learning and others [8-10]. However, as medical teaching is mainly based on traditional, ex-cathedra concepts, only a minority of medical schools had implemented such innovative concepts prior to COVID-19 [11]. One frequent argument against online learning in the past was that its implementation is a time-intensive and expensive process, due to the lack of the infrastructure needed [12]. However, in the wake of the pandemic, such teaching concepts have been successfully introduced

to a much greater extent in recent months [13]. However, it can be assumed that quickly switching to fully online teaching led to "emergency remote teaching" instead of a structured, dedicated online teaching curriculum. Although, the current situation might present a unique opportunity for the modernization of medical education in order to fulfill students' teaching needs, opinions still differ on how medical education should be delivered in the future. This study was conducted to find out the faculty's perception about these live online classes conducted for 1st year MBBS students in lockdown period of COVID-19 pandemic in India.

### Material and Methods

This study was done in year 2021. This is questionnaire based study. Questions were prepared with help of Google forms. Some questions were based on Yes or No response. Other questions were like MCQs (Multiple choice questions). Few questions were short answer based. The google forms were sent to 90 faculties of different medical colleges. First year medical college faculties were involved in this study. Informed consent was taken from all faculties involved in this study. They were explained about this study. Faculties belonged to various cadres of 3 departments Anatomy, Physiology and Biochemistry. Faculties were involved in online teaching classes during COVID-19 pandemic lockdown period.

Questions asked to the faculties regarding online teaching included following features.

- Infrastructure availability and technical problems in online classes
- Various E learning Tools and Methods used.
- Interest of students and faculties
- Teachers perspective on advantages of E learning
- Teachers perspective on disadvantages of E learning
- Evaluation and assessment of students

The response to questions were analysed and results were tabulated.

### Results

Table 1 shows various E learning tools and methods used for online classes. Zoom

application was most widely used tool for online classes. Other methods used for online classes were Google classroom, Webex, Whatsapp group, discussion, Telegram App, Microsoft Teams, Skype.

**Table 1: Various E learning Tools and Methods used**

E learning Tools and Methods	Number of faculties (n =90)	Percentage
Google classroom	25	27.77%
Live Zoom classes	80	88.88%
Live webex classes	10	11.11%
Whatsapp group, discussion and notes	70	77.77%
Recorded PPT lectures on Telegram App	15	16.66%
Microsoft Teams	25	27.77%
Skype	05	5.55%

**Table 2: Teachers perspective on advantages of E learning**

Advantages of E learning	Yes	Percentage Of Teachers	No	Percentage of Teachers
Best alternative for physical mode classes	80	88.88%	10	11.11%
Ability to stay at home in pandemic	75	83.33%	25	27.77%
Ability to record online classes	85	94.44%	05	5.55%
Comfortable surroundings	70	77.77%	20	22.22%
Teacher centered teaching	60	66.66%	30	33.33%

Table 2 shows Teachers perspective on advantages of E learning. Advantages of online classes were its best alternative for physical mode classes, Ability to stay at home in pandemic, Comfortable surroundings, Teacher centered teaching.

**Table 3: Teachers perspective on disadvantages of E learning**

Disadvantages of E learning	Yes	Percentage of Teachers	No	Percentage of Teachers
Technical problems	70	77.77%	20	22.22%
Lack of Student –Teacher interaction	80	88.88%	10	11.11%
Social isolation	85	94.44%	05	5.55%
Lack of proper students assessment	65	72.22%	25	27.77%
Difficult to demonstrate practicals	75	83.33%	15	16.66%
Lack of Students Discipline	60	66.66%	30	33.33%

Table 3 shows teachers perspective on disadvantages of E learning. Disadvantages of online classes were technical problems, Lack of Student –Teacher interaction, Lack of proper students assessment, Difficult to demonstrate practicals, Lack of Students Discipline.

### Discussion

Before the pandemic, teaching in most medical schools has been mainly based on “traditional” concepts requiring physical presence of the students [14,15,16]. The outbreak of the COVID-19 pandemic led to a sudden switch from on-site teaching to almost entirely online teaching [17]. However, this switch was mostly born out of necessity and might have caused problems in the teaching “logistics” of medical schools. Technical infrastructure had to be installed and teachers had to adapt their courses immediately. So, the COVID 19 pandemic brought a huge change in medical education as it shifts the focus from the traditional in-house lectures and bedside teachings to the technology driven online classes. Over the past few years some colleges have been using the online or electronic learning traditional form of classroom lecture based learning [18]. Still, in almost all medical schools of the country, students used to convene in physical settings [19]. Although not ideal, but live online classes through video conferencing seem to be an apt solution for continuing. While the initial shift online was difficult for both the administration as well as the faculty, ultimately it was perceived as a welcome move to combat the substantial loss of learning time of our students. In our study Zoom application was most widely used tool for online classes. Other methods used for online classes were Google classroom, Live webex, Whatsapp group, discussion, Telegram App, Microsoft Teams, Skype. Advantages of online classes were, its best alternative for physical mode classes, Ability to stay at home in pandemic, comfortable

surroundings, teacher centered teaching. Disadvantages of online classes were technical problems, lack of Student – teacher interaction, lack of proper students assessment, difficult to demonstrate practicals, lack of Students discipline.

Although these tele teaching endeavors can be a stop gap arrangement in these emergency times, but they cannot overpower the classroom teaching due to the limitations of lack of personal touch. It is wonderful that technology has enabled millions of students to keep learning even when direct contact is impossible. However, a physical classroom environment and interaction has been perceived as the best form of teaching-learning method. So, we can say that the online learning hasn't threatened the traditional model of inperson learning. We conclude that these live online classes conducted as tele teaching video conference were an easy, feasible and cheap alternative to the classroom teaching of undergraduates during this time of COVID 19 pandemic. They can also be used sometimes in future as an adjunct to offline classes, for the benefit of the students. But they cannot totally replace the traditional classroom teaching due to the lack of interaction and personal touch. Most of the faculty feedback supported online teaching; good teaching is good teaching, whether it is face-to-face or in a virtual environment. Some of the faculty were satisfied with online teaching despite using teaching methods they had never tried before. Other faculty commented that the COVID-19 pandemic proved the efficacy of online education. Other comments praised the support from the institution during the pandemic, especially regarding making resources available and real-time support services using multiple channels of communication.

### Conclusion

This study showed that e-learning is a valuable method of teaching medical

students. In the opinion of the respondents in our survey, e-learning is effective in increasing knowledge and is highly accepted. However, it is important not to focus only on increasing knowledge, but also on clinical and social skills. Thus, the COVID-19 pandemic might be the long-awaited catalyst for a new “online era” in medical education.

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