

## Perception of 2<sup>nd</sup> year MBBS students about online zoom classes during COVID-19 pandemic: A questionnaire-based study

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### Abstract

Progress is impossible without change, and those who cannot change their minds cannot change anything” by George Bernard Shaw. Using Zoom technology to deliver lecture, connect students and enable anytime, anyplace learning is increasing in COVID-19 pandemic, however keeping students engaged in online learning is difficult in medical education. The study aimed to determine the student's perception regarding online classes in Forensic medicine. We used zoom video lectures which can be accessed by students from anywhere. The study was conducted at Mayo Institute of Medical Sciences, Barabanki. It is a cross-sectional questionnaire-based study. Analysis was done on percentage wise distribution of various parameters used. The study was conducted among 152 study participants, out of which 82(53.95%) were male and 70(46.06%) were female. Majority of the study participants 95(62.5%) felt online classes help them in understanding the topic adequately. 120(78.9%) respondents perceived that only teacher talks during online classes. 140(92.1%) respondents feel major limitation of online class is in regard to practicals. Overall opinion of majority of participants is positive and in favour of online classes to avoid exposure to COVID -19 pandemic. However, practical /clinical exposure will have to be ensured in the training of Indian medical graduates. Normally student's perception regarding online zoom classes in forensic medicine was determined to be positive. Practical class learning is indispensable in medical education, which will have to be incorporated as situation permit.

### Keywords

Online classes; Student perceptions; COVID-19 pandemic; Percentage wise distribution.

### Introduction

Coronavirus pandemic has not only impacted human life but also impacted medical education and residency all over.<sup>1</sup> Educational institutions were shut down because of the lockdown; Medical Colleges started online classes to ensure continuity of education. India is not new to online education.<sup>2</sup> Teachers and Colleges are putting extra effort to engage students in online classes by rescheduling timetables, discussions online and taking feedback by means of questionnaire at the end of lecture series. Tutorials are assigned online to encourage self-study.

### Materials and Methods

A Cross-sectional study was conducted during 01<sup>st</sup> April and 30<sup>th</sup> September 2020 among 2<sup>nd</sup> year MBBS students of Mayo institute of medical sciences, Barabanki with the objective to evaluate the perception among 2<sup>nd</sup> year MBBS students in relation to online classes and to modify the teaching methods if

required. Online classes were conducted once every week for 6 months in forensic medicine Department, MIMS, Barabanki . Free version of zoom platform was used which allows maximum of 80 students at a time and for time period of 40 minutes. Student's perceptions were collected by online prevalidated questionnaire at the end of this lecture series. Participation was on voluntary basis. Participants were asked to choose their response from the two alternatives. Responses were obtained on google form online due to COVID-19 pandemic. Only participants who attended 75% of online classes were included. Data was entered into Microsoft excel sheet and analyzed using SPSS version 15. Data was summarized using percentages with the confidence level of 95%.

### Results

There were total of 152 2<sup>nd</sup> year MBBS student participants in the online survey who fulfilled the criteria, out of which 82(53.95%) were male and 70(46.06%) were female. A majority of respondents, that is 95(62.5%) felt online classes help them in understanding the topic while 57(37.5%) of them feel online classes are of no use. It is evident from Table 1. Most of the participants 145(95.4%) could easily be able to use the class link and did not need any assistance in joining zoom online classes. While 7(4.6%) of the respondents had difficulty due to poor internet connectivity. In response to quality of teaching, 120(78.9%) study participants perceive it as one way

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process where teacher talks and students have less opportunity to discuss with their teachers, while 32(21.1%) students feel both students and teachers can discuss and clear doubts of students. It is shown in Table 1.

**Table 1:** Perceptions of participants regarding online classes during COVID-19 Pandemic(n=152)

Questions	Response	Frequency(n)	Percentage (%)
Q.1 Does the online classes help you in understanding the topic adequately?	a) Yes	95	62.5%
	b) No	57	37.5%
Q.2 Are student able to use the class link easily and did not need any assistance?	a) Agree	145	95.4%
	b) Disagree	07	4.6%
Q.3 How is online Forensic medicine class conducted?	a) Only teacher talk	120	78.9%
	b) Both teacher and student can talk	32	21.1%
Q.4 what should be the frequency of online classes of Forensic medicine?	a) Once a week	140	92.1%
	b) Twice in 1 week	12	7.9%
Q.5 What should be the duration of online classes?	a) <1hr	130	85.5%
	b) >1 hr	22	14.5%
Q.6 Standard of teaching method in online classes?	a) Excellent	108	71.1%
	b) Average	44	28.9%
Q.7 By which means you use to access online classes?	a) Smart phones	122	80%
	b) Laptop	30	20%
Q.8 Are online assignments given to student's submitted in time?	a) Submitted in time	140	92.1%
	b) Not submitted in time	12	7.9%
Q.9 Do online classes help keep student engaged and divert their mind from pandemic?	a) Agree	137	90%
	b) Disagree	15	10%
Q.10 Practical topics like autopsy examination, age estimation, drunkenness certificate etc. cannot be covered in online classes	a) Agree	140	92.1%
	b) Disagree	12	7.9%

A good proportion 140(92%) of the participants feel that the frequency of online classes in forensic medicine should be once a week, while only 12 (7.9%) feel it should be twice in a week to compensate for short lecture time and occasional disturbance due to connectivity. In response to the duration of online classes 130(85.5%) of students agreed that duration to be less than an hour and 22(14.5%) feel that duration should be more than one hour as some time is lost in connecting to video lectures due to poor internet connection in rural areas. Next question asked about standard of teaching method in online classes-108(71.1%) students believe as excellent, while 44(28.9 %) students perceive as average. Most of participants 122(80%) preferred mobile phones for online classes as mobile phone is

easy to carry anywhere, it is accessible easily, (30)20% respondents prefer laptop for online classes as it gives clearer view. 140 (92.1%) respondents submitted their assignment in time, it shows they are showing interest in online learning and only 12(8%) participants submitted later because they found it too lengthy. Majority of study participants 137(90%) feel online classes are able to keep student engaged in their study and divert their mind from ongoing pandemic situation, 15(10%) do not agree. 140(92.1%) respondents feel major limitation of online teaching in covering practical/clinical topics like autopsy or age estimation where practical exposure is vital, 12(7.9%) opine that it can be covered by projecting videos.

## Discussion

During COVID-19 pandemic online classes arranged for MBBS students with motive to ensure students remain in touch with their studies during the lockdown. This shifting of teaching and learning from live classrooms to online mode poses lots of challenges that relate to the availability of resources, technical glitches, issues of privacy, and skilled manpower.<sup>3</sup> Smooth coordination of effort from all stakeholders and the will on part of students to make it a success is essential. In our study 95(62.5%) of respondents stated that online classes help them in understanding the topic better than what they can do on their own. This was supported by Linjawi and Alfadda that online learning method is an effective way to enhance student learning.<sup>4</sup> Jena felt both teachers and students faced difficulties in joining online classes but got acquainted later on.<sup>5</sup> In our study most of, 145(95.4%) study participants could connect to zoom lectures easily as there are habitual of using smart phones.

Kaur et al. has also found that the online classes are move confined to the topic, better interact with teachers for any doubt.<sup>6</sup> This in contrast to our study in which majority of 120(78.9%) study participants perceive that in online classes mainly one way affair. According to Radha et al., 53.7% of students preferred mobile phones for e-learning followed by laptop 30.29% and remaining students mostly prefer laptop / mobile (7.43%), laptop, mobile and desktop (2.86%) respectively.<sup>7</sup> In our study majority that is 112(80%) of participants preferred smart phone for online classes these are easily accessible and easy to carry. According to Kaur and Sharma, giving assignment and specific task enhances self-directed learning during online teaching. Most 132(47.5%) of participants agreed that giving assignment or some specific tasks can enhance active learning during online teaching.<sup>8</sup> According to Agarwal et al. one of the advantages of online classes is that it kept students engaged and divert their mind from COVID-19 pandemic and keep their morale high.<sup>9</sup> In our study also majority is 137(90%) respondents feel online classes

keep them engaged in their study. In our study a good proportion 140(92.1%) of participants feel online classes for theoretical topics can be taught well but practical topics like Autopsy examination, Age estimation, Drunkenness examination need class room learning. A similar finding has also been reported by Mukhtar et al. where respondents said that in online learning modalities, they were unable to learn practical and clinical work.<sup>10</sup>

## Conclusion

COVID-19 Pandemic made us understand the importance of online classes for our undergraduate students. This study has helped in knowing student's perspective relating to online classes and it will be useful in modifying teaching patterns in coming years. During this study we found that almost all of the students are satisfied with online classes. Major advantages of online education are in the form of - flexibility, convenience and it can be accessed from anywhere. Online education is the new trend. In future, we will be going to see application of technology tools and gadgets will be inevitable.

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