

RESEARCH ARTICLE

Study of evaluation of e-learning classes among medical students during COVID-19 pandemic phase in Jamnagar city

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ABSTRACT

Background: Traditional teaching method has been universally accepted and adopted in almost all medical colleges in India. As due to the coronavirus disease-19 pandemic situation, we have conducted e-learning classes for theory and practical for the first time in our medical college, and we have prepared this study to understand student preferences in medical education. **Aim and Objectives:** The aim of this study was to evaluate the preference of students between online teaching and traditional classroom teaching. **Materials and Methods:** This study was conducted in 250 1st-year MBBS students of Shri M. P. Shah Government Medical College, Jamnagar, after getting approval from the Institutional Ethical Committee. A pre-structured questionnaire-based study was conducted through Google form after obtaining written consent from the students. We have included 24 questions with multiple choice answers. **Results:** In our study, we found that 57% medical students prefer traditional teaching methods over e-learning classes, and 88% of students prefer traditional teaching method than e-learning for practical classes. **Conclusion:** In our study, we found that medical students prefer traditional teaching for theory and practical classes. The student also prefers online teaching materials, along with traditional teaching methods. For better understanding and learning, medical students prefer that traditional classroom teaching should be followed by online video lectures that can be easily accessed by students at their convenient time.


KEY WORDS: Traditional Teaching Methods; E-learning; Coronavirus Disease-19; Medical Students

INTRODUCTION

Traditional teaching methods are an integral part of medical teaching in India, where the teachers are on the stage in front of the students communicating with them in the classroom and the practical facilities. The traditional teaching method has been universally accepted and adopted in almost all medical colleges in India.^[1] The term e-learning simply occurs at the computers and other media devices with the

help of Internet and gets the information through the browser, which generally means over the Internet, with the information delivered through a browser or media applications (YouTube, Skype, Google meet, etc.).^[2]

As due to the coronavirus disease (COVID)-19 pandemic situation, colleges and universities were closed by the government for traditional teaching. Hence, e-learning was the only available option for teaching purpose in medical colleges. Hence, we have conducted e-learning classes for theory and practical for the first time in our medical college during COVID-19 pandemic phase. Hence, we have planned this study to understand the difference in students' perspective between e-learning and traditional classes. Hence, the aim of the study is to evaluate the preference of students between online teaching and traditional classroom teaching.

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MATERIALS AND METHODS

This study was conducted in 1st-year MBBS students of Shri M. P. Shah Government Medical College, Jamnagar. This study was conducted after approval from the Institutional Ethical Committee. A total number of 250 undergraduate medical students who have attended traditional classroom teaching and online platform in physiology have participated in this study. A pre-structured questionnaire-based study was conducted through Google form after obtaining written consent from the students. The students have provided their feedback through Google form. We have included 24 questions with multiple choice answers. Questions are related to their theory lecture classes, practical classes, their dependence, and preference for it and overall satisfaction of the students.

RESULTS

The findings of the present study are summarized in Table 1 and Figure 1.

DISCUSSION

In our study, we found that 90.8% of students prefer the physical presence of teacher for the development of their learning skills. About 41.2% of students believe that they can concentrate more on traditional classroom lectures. According to 74% student's traditional classroom, lectures are more convenient to ask queries to teacher and also to give immediate feedback (64%) to teacher. Students feel more personalized (52.4%), and they have more freedom (68.2%) in the online lectures than traditional classroom lectures. About 46% of students prefer online video lectures because they believe that they have sufficient time to understand the lecture, take notes at the same time and study at a convenient time. About 40.8% of students prefer traditional classroom lectures for theory and 51% for the tutorial. Practical classes play an essential role in medical education. For the practical classes, 88% of students prefer the traditional teaching method than e-classes. In our study, we also asked students about their preferred method for their assessment examinations. We

Table 1: Responses of the students

Questionnaire	Students' response in %		
	Yes	No	
Does the presence of your teacher affects your learning skills?	90.8	9.2	
Does the absence of your teacher for online classes benefit you?	22.8	77.2	
Do you feel more personalized in the online classes lecture than traditional classroom lectures?	52.4	47.6	
Does your active learning get affected by the presence of your colleagues in the traditional classroom lectures?	68	32	
Do you feel e-learning gives you more freedom and more helpful in your learning process?	68.2	31.2	
Do you feel traditional classroom teaching should be followed by online classes?	55.2	44.8	
Do you feel accessibility to Internet hindering your education?	49.6	50.4	
	Online video lectures	Traditional classroom lectures	Both
In which method can you concentrate more?	19.2	41.2	39.6
In which method do you feel you need to be more motivated, disciplined, and self-directed in learning?	23.6	44	32.4
Which type of learning gives you sufficient time to understand the lecture and to take notes at the same time?	46	32.4	21.6
Which learning method is more convenient for you to ask queries to teacher?	8.8	74	17.2
By which method can you give immediate feedback to your teacher?	13.2	64	22.8
Which one is the best method for you to study at your own pace?	46	30.8	23.2
By which method do you distract more?	60.8	27.6	11.6
By which method are you able to collect variety of resources/study material?	44.8	32.8	22.4
Which of the following methods makes you more enthusiastic and interested in learning?	39.6	60.4	-
By which method, you can easily remember relevant information?	29.2	43.2	27.6
Which method do you prefer for theory lecture?	33.2	40.8	26
Which method do you prefer for practical classes?	3.2	88	8.8
Which method do you prefer for tutorial?	21.2	51.2	27.6
Which method do you prefer for theory examination?	37.6	40.8	21.6
Which method do you prefer for practical examination?	37.6	40.8	21.6
You would recommend which teaching method?	59	26	15

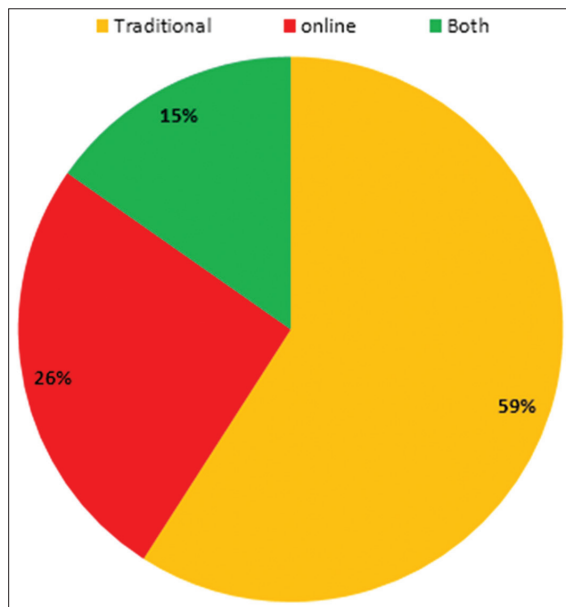


Figure 1: Preference of teaching method by students

found that 40.8% of students prefer traditional assessment methods in medical education.

In our study, we found that medical students prefer traditional teaching methods (57%) over e-learning classes. Dondorf *et al.* also observed that the face-to-face teaching was more successful than the e-learning in their study.^[3] In our study, we found that 60.8% of students feel that online video lectures distract more in their studies than traditional teaching. The probable reason behind it could be physical absence of the teacher in e-classes. According to 44% student's, the presence of the teacher is more helpful for motivated, disciplined, and self-directed learning in traditional teaching. About 44.8% of students prefer online video lectures to collect variety of resources and study material. According to 55.2% student's, traditional classroom teaching should be followed by online lectures for better learning. Hanna and Newvine also observed in their study that students prefer distance learning (e-learning) more than traditional teaching methods.^[4] Oliver and Görke also suggest increased use of media devices by students nowadays, and it can be used for constructive participation in learning skills also.^[5]

We have conducted this study during COVID-19 pandemic phase, and we want to collect data after COVID phase for

better evaluation of change in teaching method preferences by medical students. We also want to continue our research with a large number of students in other medical colleges of Gujarat to understand more about student preferences in medical education.

CONCLUSION

In our study, we found that medical students prefer traditional teaching for theory and practical classes. The student also prefers online teaching materials along with traditional teaching methods. For better understanding and learning, medical students prefer that traditional classroom teaching should be followed by online video lectures that can be easily accessed by students at their convenient time.

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