

Evaluation of Virtual Classes Teaching among first-year MBBS students during COVID-19 era in GMC Jammu

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Abstract

Background: The Covid-19 era has caused the shifting of medical teaching into an Online podium. This has provided us with an excellent opportunity to recognize MBBS- students' preferences of these Online classes which otherwise did not form a significant part of the traditional medical teaching. We have undertaken online classes for theory & practical for the first time in our medical college at GMC Jammu. So the current study was conducted to assess & analyze the preference of first-year MBBS students between online classes & traditional classroom teaching.

Objectives: To evaluate the predilection/inclination of first-year MBBS students between online classes and traditional classroom teaching.

Materials & Methods: An institution-based descriptive cross-sectional study was performed on 180 MBBS students of 2020-21 batch at the Department of Physiology in GMC Jammu, after receiving Institutional ethics committee (IEC) clearance who have attended online classes for a minimum of 1 hour per day or 6 hours per week for 1-month duration using zoom or other video-based learning platforms. A pre-structured questionnaire-based feedback study was conducted after obtaining written consent from the first-year MBBS students. We designed a total of 24 questions related to their theory & practical classes, for assessing their preference for Online classes in comparison to traditional classroom teaching with multiple-choice options.

Results: In our study, we found that overall, 61.11% of MBBS students prefer traditional classroom teaching over Online classes and 60% of students prefer traditional teaching methods over online learning for practical classes. However, 50% of students reported that accessibility to stable internet was causing difficulty in following Online classes. Moreover, 53.89% of students reported that they get distracted at home during Online classes. Further, 66.11% of students mentioned a lack of personal interaction & lonely experience on the Online platform.

Conclusion: In our study, we found that medical students prefer the traditional teaching method to the Online platform for learning as well as examination. For better understanding and learning, the first phase of MBBS students prefers that traditional classroom teaching should be followed by Online classes that can be easily accessed by students at their convenient time. In this study, the majority of medical students reported limited access to stable internet, distractions & disturbances in the domestic environment, & lack of personal interaction as the barriers to Online learning.

Keywords: Covid-19, Medical students, Online classes, Traditional teaching method.

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Introduction

The Covid-19 era has caused a dynamic shift in the world education system, thus transforming medical teaching into an Online podium. The imposition of lockdown led to the shutdown of physical classrooms and hence Online education became the new norm. This has provided us with an excellent opportunity to recognize MBBS- students' preferences of these Online classes which otherwise did not form a significant part of the traditional medical teaching. In unprecedented times like this, with the traditional classroom setup, it is not possible to allow social distancing, so Online classes are probably the best option available for teaching. To name positive attributes of Online classes, few are flexibility in the timing, to study in a comfortable domestic environment, and a platform to openly share ideas.¹

The virtual platform has its limitations. Both the students and the teachers are required to have technical skills for better efficacy. In this scenario, the associated factors such as the functioning of the devices and platform, social environment all play an important role in the success of the Online classes.²

However, students are not satisfied by continuous lectures in their normal classroom setting nor are they able to withstand the same in virtual mode. They always expect something innovative & new which can involve a mixture of both Online and classroom learning. Thus, the learning modality offered to the students has to be learner-centric.³

As both teachers and students adapt to this new teaching-learning environment amidst a stressful Covid pandemic, it is essential to evaluate the system currently being used given the limited literature available regarding the same in India.

Moreover, we have undertaken Online classes for theory & practical for the first time in our medical college at GMC Jammu from May to July 2021. So, the current study was conceived to assess & analyze the preference of first-year MBBS students between Online classes & traditional classroom teaching, after the reopening of colleges in August 2021 & conducted in Nov 2021.

Materials and Methods

An institution-based descriptive cross-sectional study was performed on 180 MBBS students of 2020-21 batch in November 2021 at physiology department, in GMC

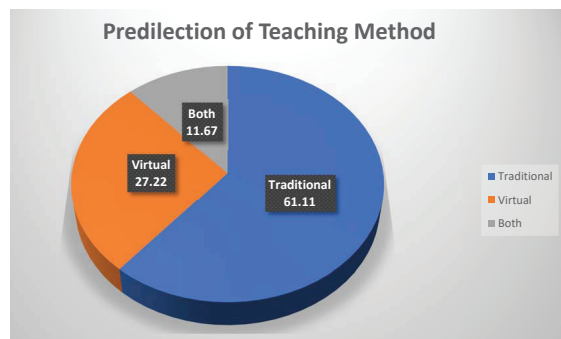
Jammu, after receiving Institutional ethics committee (IEC) clearance issued vide no. IEC/GMC/2021/664 dated 02.11.2021. Those medical students, who have attended Online classes for a minimum of 1 hour per day or 6 hours per week for a minimum of 1-month duration using zoom or any other video-based learning platform were recruited for the study. Each class of Physiology whether attended by traditional classroom teaching or Online mode were scheduled for a duration of 1 hr. A pre-structured questionnaire-based feedback study was conducted after obtaining written consent from the first-year MBBS students. An in-depth literature review was performed and a questionnaire was developed & adapted from previous few studies to satisfy our study objectives [4,15]. Questions were framed to evaluate medical students' perception of online classes vis a vis traditional classroom teaching. These questions were then reviewed by the subject expert and validated. As per the recommendations of the expert, the questions were either removed or rephrased. Finally, we designed 24 questions related to their practical & theory classes, for assessing their preference for online classes or traditional classroom teaching with multiple-choice options. A questionnaire was shared with first-year MBBS students in a classroom. The study was advertised by word-of-mouth and through in-class announcements. Responses were anonymous & no personal information was collected. Data were analyzed using SPSS 26 statistical software. To analyze the closed questions, simple descriptive statistics were used.

Observation and Results

Participant characteristics are depicted. In our study, we spotted that 61.11% of MBBS students prefer traditional classroom teaching over online classes. 52.22% of students desire traditional classroom teaching in comparison to online learning for theory classes. 60% of students opt for traditional classroom teaching than online learning for practical classes. 60% of students recommended that traditional classroom teaching should be followed by online classes. 50% of students reported that accessibility to stable internet was causing difficulty in following online classes. 53.89% of students mentioned distractions in a domestic environment and 66.11% of students reported a lack of personal interaction & lonely experiences as barriers to Online learning.

Table 1: Participant Characteristics

| Online classes attended by students for total duration | (Duration/ User Percentage) |
|--|-----------------------------|
| less than 1 month | 0% |
| 1 month | 62% |
| more than 1 month | 38% |
| 2) Online classes attended by students per day | |
| less than 1 hr | 0% |
| 1 hr | 34% |
| More than 1 hr | 66% |
| Online classes attended by students per week | |
| less than 6 hr | 8% |
| hr | 60% |
| more than 6 hr | 32% |
| Devices used for accessing Online classes | |
| Laptop/Desktop | 9% |
| Smartphone/Tablet | 81% |
| Both | 10% |

**Fig1: Predilection of teaching method by students.**

Discussion

As due to the Covid-19 Pandemic situation, medical colleges and universities were closed by the government for traditional classes. Hence, Online classes were the only available option for teaching purposes in medical colleges. We planned this study to understand the student's perspective between Online & Traditional classes, through a questionnaire-based study in the Covid era, so that we can apply this knowledge to enhance effective learning in the future [4]. In traditional teaching methods, teachers are on the stage in front of students interacting with them in the classroom and the practicals. The traditional teaching method has been universally accepted and adopted in almost all medical colleges in India.⁵ The

term virtual learning occurs at the computers, and other media devices with the help of the Internet, with the information delivered through a browser or media applications (Zoom, Google Meet, Microsoft Teams, etc.) [6]. The present study attempts to analyze and assess students' perception of Online classes conducted during the COVID-19 era. A mixture of both encouraging & unenthusiastic responses was received from participants toward the Online classes. Respondents were males and females of Z generation (born between 1997-2012) in the age group of 17-21 years, in a ratio of 1:1. Most spent more than 1 hr/day in Online classes. In our study, the majority of the respondents used smartphones (81%) to access Online classes. Research has shown limited interaction between teacher & student to be a common problem in an Online learning environment.⁷ Social interaction is one of the most important components of teaching and learning experiences.⁸ Interaction between the students and teacher and also inter-student interaction helps to make learning more productive, meaningful and also enhances students' knowledge.⁹

Students reported that interaction in Traditional classroom teaching encouraged learning, which was not achieved through Online classes.¹⁰ In, our study we found that medical students prefer traditional classroom teaching (61.11%) over Online classes. Similar findings were shown by Dondorf T et al., & Abbasi S et.al., who observed that the traditional classroom teaching was more successful than the Online classes in their study.^{11,12} In contrast, Lall S & Singh N with Hannay M & Newvine T observed in their study that students prefer Online classes more than traditional classroom teaching.^{13,14}

Many participants have reported limited access to a stable internet, distractions at home environment & lack of personal interaction as the limitations to Online learning. Despite these limitations, 11.67% of the students wanted a combination of both Online & classroom teaching for the future. 61.11% of participants wanted only classroom classes and 27.22% wanted only virtual classes.

The Covid-19 pandemic resulted in a rapid shift from classroom teaching to Online teaching to maintain uninterrupted & continuous learning for the students. Insufficient time was present to modulate the curriculum to fit into the framework of virtual teaching. Both teachers and students had to rapidly learn to adapt to this new environment of Online teaching and learning.¹⁵

Limitations of the study: Although care has been taken to report the responses accurately, an element of bias is always said to be associated with questionnaire-based studies. We have conducted this study during the Covid-19 pandemic with first phase MBBS students only and want to collect data after the Covid pandemic for all phases of medical students of our college so that a better evaluation of change in teaching method preferences by medical students can be done. We also want to continue our research with a large number of students in other medical colleges of the Jammu region to understand more about student preferences in medical education.

Conclusion

In the present study, our findings suggest that first phase MBBS students prefer traditional teaching to Online classes. The majority of students suggest that traditional classroom teaching should be followed by Online classes for better understanding and learning as that can be easily accessed by students at their convenient time. About half of the class felt internet instability was the culprit for hampering Online learning. 53.89% of students mentioned distractions in the domestic environment and 66.11% of students reported a lack of personal interaction & lonely experiences as the barriers to online learning. The majority of students used Smartphone devices for accessing Online classes. Thus, the present study gives weight to the student's voice by specifically evaluating medical students' perceptions about teaching methodology.

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Declaration of participant consent: The authors certify that they have obtained all appropriate participant consent.

Ethical clearance: The study was approved by the IEC of GMC Jammu.

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Conflict of interest: No conflict of interest is there.

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