



TAKE HOME MESSAGE FOR M.B.B.S STUDENTS FROM NEWLY INTRODUCED ONLINE CLASSES DUE TO COVID-19 PANDEMIC

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ABSTRACT **BACKGROUND:** The internet becomes “information superhighway”. From its inception, it had grown such that it could be accessed from any part of the world. Conventional classroom teaching had been replaced to some extent by online learning. Almost two years of online classes due to lockdown in Corona virus pandemic, helped the students to understand the future learning methodology.

OBJECTIVE: To determine the “take home” message for the M.B.B.S students from online classes.

METHODOLOGY: Both live and recorded online classes had been introduced during lockdown period. When medical college opened and students were back to classes a survey was undertaken based on the semi structured questionnaire based on google form. Responses were analyzed with Microsoft excel 365 software.

RESULT: 143 out of total 200 students responded (72%). 64% students liked recorded classes, according to them, recorded classes could be accessed at a convenient time (44%), repeat watching helped to clear the concepts (34%), easily accessible (53%), video could be shared among the peer groups (61%). Rest of the students preferred live streaming classes. In their opinion, live classes felt like actual class (75%), could directly interact with friends (66%), asking question directly to the teachers (34%),

They tried to include in future the following aspects of online learning to offline classroom teaching, those were: start peer group learning, sharing the useful contents, improvements of technological knowledge and skills, to maintain discipline in the class- there were take home message for the students after long one year of online classes

CONCLUSION: It was clear if proper strategy had been taken and if widespread internet connections would be provided the online classes could be effective as classroom teaching.

KEYWORDS : online classes, Corona virus, pandemic. take home message.

INTRODUCTION

The Indian medical education system is principally based on face-to-face classroom teaching with hands-on training for clinical and practical classes. The total shift of pedagogy from offline to online mode became obligatory when the NOVEL CORONA Virus pandemic hit worldwide from March 2020. Initial doubt was associated with e-learning. Accessibility, affordability, flexibility, learning pedagogy all were dealt with accordingly but not at all levels of the medical education system especially where the funding system is poor.

Offline classroom teaching is a familiar method practiced by medical teachers. The course was framed in that way. Moreover, hand-on training is applicable only in classrooms.

Online mode is a cheaper mode than offline education but needs an initial investment at the individual level. Flexibility to time is another advantage. Mixed types of experiences were shared by faculties and students.

Many e-learning platforms are available now, but initially, very few of them were developed then. Initial jitteriness was overcome and students and teachers are now quite familiar with the new method of learning.

Recently medical colleges have reopened with some restrictions due to COVID protocol. Students and teachers share some changes in their experiences for both types of classes. So those online classes influenced the students and what are the changes they want from that experience so that they can improve their learning capability, was the underlying idea to conduct this study.

MATERIAL AND METHODS

Study design: it was an online questionnaire-based (Google form), qualitative, observational, cross-sectional study

Place and duration of the study: the study was done on behalf of the department of physiology of North Bengal Medical College and the duration being 1st to 30th November 2021.

Sample size and sampling method: all 200 students of first-year M.B.B.S were approached, in whom 143 students responded (72%).

Method of data collection: A Semi-structured Google form was made containing 25 questions. Both structured and open questions were

included. Questions were designed such that, it asked for consent, their demographic record, availability of internet in their locality, opinion about their preferences about the type of online classes (live versus recorded classes), problems faced during classes, interactions with teachers and peers, pros and cons of these types of classes, experiences with the offline classes before COVID-19 and lastly their overall experience and opinion as their take home message. They had answered the question anonymously as the name was not included in the questionnaire.

The students were approached via link sharing of the questionnaire through individual e-mail and one month was provided for completing the survey.

Questions were framed in such a way that anonymously they could answer the questions targeting their overall experiences on online classes and how that differ from classroom teaching and their overall opinion.

Ethical approval and consent from the participants: The proposal of the study was submitted one month earlier before the commencement of the study. They approve it after 15 days. They considered the fact that no invasive method would be involved and the identity of the participants would not be disclosed.

Inclusion and exclusion criteria: students of first-year M.B.B.S. curriculum was only included.

Statistical analysis and software package: in the case of structured questions, data analysis was done by Google form itself, but for open questions, data analysis was done by Microsoft excel 365 packages.

OBSERVATION AND RESULT

143 students out of 200 students responded (72%)

Students had an age range of 18 to 25 years. 51% of students were between the ages of 18-20.

35% of them were from rural areas. 10% had faced technical problems due to internet connection. Rest of the students were from urban areas, but 4% of them had internet issues.

They were taught with both recorded and streamlined classes, when they had been asked about their preferences, in 64% of cases, they preferred recorded classes.

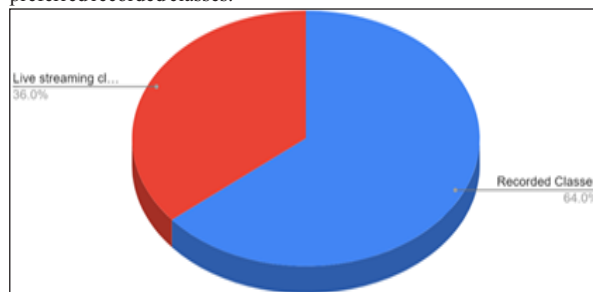


Table: 1 Opinion Regarding Preference Of Recorded Classes

Sl no.	OPINION	PERCENTAGE
1	Recorded classes could be accessed at a convenient time	44%
2	It could be seen repeatedly so that important to clear the concept	34%
3	Could be accessed anywhere	53%
4	Ready-made teaching materials could be shared amongst the peer-group	63%

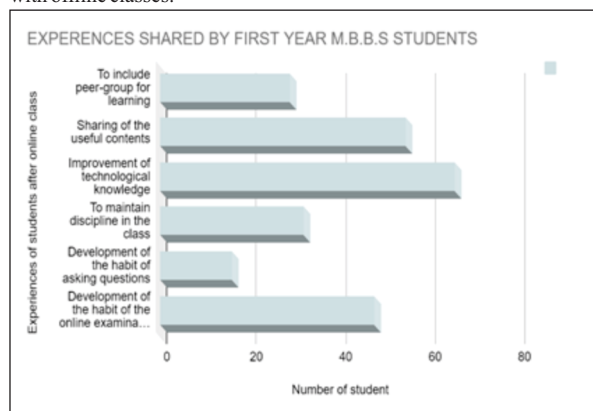
The rest of the students (36%) preferred live-streaming classes as because of the following reasons:

Table 2: Opinion Regarding Preference Of Live-streaming Classes

Sl no.	OPINION	PERCENTAGE
1	Live-streaming classes felt like offline classes	75%
2	Could interact with peer groups	66%
3	Directly asked questions to the teachers	34%
4	Could ask the teachers to repeat the topic which was not understood	56%

Disadvantages they also coined, like, the small screen of the mobile caused eye pain ((22%), headache (14%), migraine attack (2%). They were distracted by social media(59%) that could break their concentration, if uploading the teaching content is done frequently - they felt overwhelmed and frustrated (41%).

After the opening of the college, when they attended offline classes, they were provided with google forms, to assess the what was their experience with online classes so that they can add on some aspects with offline classes.



DISCUSSION

It was a questionnaire-based cross-sectional study. 200 students of first-year M.B.B.S curriculum were approached, 143 students responded (72%). It was a single-blinded study where a semi-structured questionnaire was distributed among students through e-mail in Google form. During the COVID-19 pandemic, they went to their places and did online classes. After returning to college and while doing offline classes they answered the questionnaire about their experiences with online classes and what aspects of e-learning they should include in their future.

Internet connection was an issue for about 15% of students, among them, 65% were from rural areas.

Recorded online classes as offered by some departments appeared to be more helpful for a group of students (59%). In their opinion, classes could be accessed at convenient times and places, to clear concept the recorded classes were helpful as they could watch them more than once. These would act as ready-made teaching materials which could be distributed digitally among the peers.

41% of students were happy with live stream classes as they felt that would be in real classrooms where peers could be interacted with. They also stressed the fact that doubts could be cleared in real-time by asking the questions, online discussion of the topic could be possible.

After the relaxation of COVID protocol, colleges were allowed to open with some restrictions, and students were doing classes regularly. It was an open questionnaire asking about "what are the aspects would you like to incorporate in their study while they are in the classroom?" they responded in the following way:

1. They will try to improve their technological expertise (67%)
2. The habit of sharing useful content and peer-group learning (47%)
3. To maintain discipline in the class (26%)
4. Making a habit of asking questions (18%)
5. Development of habit of online examination (43%)

Mobile phones were the media of communication and study for most of the students (91%), others used laptops. But it had disadvantages of its own. Many students complained of eye pain and headache, some consequences of migraine attacks were there. Moreover, they were distracted by social media while learning.

So, we can see through the above discussion online classes possess both pros and cons in their experiences. The take-home message for them online learning made them ready for the future digital world of study.

Heeyoung Han, Erica Nelson, Nathan Wetter in their article titled, "Medical students' online teaching and technology needs", published in 2014, the survey focused on five major areas: students' software and hardware use, perception of educational technology, online behaviors and demographic pieces of information. they concluded that medical students' educational technology needs differ in preclinical and clinical years, so technology support will be integrated in preclinical and clinical years. (1)

online classes need strategies to engage students. in a study by Suhong Leo and Melanie Calman, made series of summary videos for students' assignments, then investigated their impact on Students' learning. Investigators used exploratory sequential mixed method research design: quantitative phase and qualitative phase. after data analysis, they found summary videos had a nonsignificant impact on learning of the nursing students. After this result, the investigators formulated better teaching strategies. After that, the result indicated that summary videos facilitate students' achievements, reinforce previous knowledge, engaging students cognitively, emotionally, and socially. (2)

Medical students use smartphones for teaching and learning purposes and it is increasing day by day. Muhammad Zahid Latif et al in their study showed that medical students used mobile phones for online textbooks (75%), medical podcasts (60%), medical calculators (75%), and online lectures (80%). (3) So, this study revealed that medical education can be provided by that means also.

The Ebola virus epidemic and civil war in Liberia left the country in need of strengthening of the health workforce. Only e-learning in medical education provided learning opportunities for the students, developed faculty competencies assisted with the retention of the healthcare workers. (4).

A blended classroom consisting of a traditional classroom plus was compared with the traditional classroom amongst the 2nd year nursing students in China. They prefer blended classrooms. (5)

So, it is a big shift from teacher-oriented classroom teaching to student oriented online teaching where teachers guide the students about "how to learn" as many modes of information starting from text, PowerPoint presentations, podcasts, video files are available on the internet, they helped both teachers and students to understand the topic in a lucid way. So, the concept of the "flipped classroom" where the instructional strategy of the teacher focus on students' engagement of active learning, will emerge as a necessary step. After taking the proper feedback from the students, the proper strategy could be formulated. as

they shared their experiences like sharing content in peer groups, the teachers might guide them on how to improve the procedure. Getting familiar with the technological aspects could be also taken care of.

CONCLUSION

As stated in the introduction, the purpose of the study was to assess the experiences shared by the first-year M.B.B.S students, the study fulfilled the purpose. Students were explicitly presented their views, as it was a single-blinded study

It was a simple and well-designed study. The method is well validated and could be reproduced easily in the future. It needed a few clicks to answer and well-suited modern technology. Some other relevant questions could be included in the study. The COVID-19 era forced us to think differently being confined to home. It is an era of 'new normal' with this study we can understand the needs of the students, so we can recommend future recommendations

Limitations:

The study did not cast light on solution of the problem, students faced specially what change the administrators could make to practical and clinical classes available online.

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