

Medical Teachers' Experiences and Attitudes towards Online Classes Amidst Covid-19 Pandemic

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Abstract

Background: the internet becomes "information superhighway". From its inception, it had grown so much that it could be accessed in part of the world. At COVID-19 pandemic era we totally relied upon internet-based teaching. Hardship followed by the medical teachers due to new experiences along with some positive attitudes towards it had been enquired in this study.

Objective: To explore the experiences of medical teachers about online classes amidst of COVID-19 pandemic.

Methods: Online classes were taken at the time of the Novel Corona Virus pandemic (COVID-19), After completion of first year course by taking both recorded and live streaming classes, a survey was undertaken based on Google form after Institutional Ethics Committee clearance. It was a qualitative study and responses were analyzed in Microsoft Excel-365 package.

Result: after approaching 52 medical faculties, 35 of them responded. 74% were new teachers, having less than 10 years experiences. Some of them preferred to take recorded classes, some preferred live classes. These choices depended upon their expertise, internet availability, demands of the students etc. Doubt clearance, giving small assignments to the students, online examinations, all could be done through online. But one opinion was common to all that it was difficult to take practical and clinical classes.

Conclusion: if proper strategies will be undertaken and logistics would be supplied to fill-up the loopholes, then online teaching would also be successful as class-room teaching.

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I. Introduction

Internet provides global communication, access to information, research, and teaching. After the introduction of smartphones, most people have the opportunity to access the internet. A new concept of teaching method has been proposed in medical teaching, where teachers will be the facilitators and help the students for self-directed learning. Until now conventional classroom teaching was practiced in India, but the COVID-19 pandemic compelled teaching authority to design online classes for students. As web-based classes require technical expertise, after initial fidgetiness, online classes had been taken by the teachers and in the course of their journey, they met with various experiences.

I have tried to explore their experiences in my study.

OBJECTIVE

To explore the experiences of medical teachers about online classes amidst of COVID-19 pandemic.

II. Material And Methods

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

Place and duration of the study: the study was done on behalf of the department of physiology included the various departments of North Bengal Medical College and the duration being 1st to 30th September 2020.

Sample size and sampling method: 45 faculties of various departments (both clinical and preclinical) were approached in the study, 38 responded.

Method of data collection: A semi-structured Google form was made containing 20 questions. Both structured and open questions were included. questions were designed such that, it asked for consent, their demographic record, duration in the teaching profession, availability of internet in their locality, opinion about their preferences about the type of online classes (live vs recorded classes), problems faced during classes,

interactions with students, pros and cons these types of classes and lastly their overall experience and opinion. They had answered the question anonymously as the name was not asked.

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

Ethical approval and consent from the participants: The proposal of the study was submitted one month earlier from 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.

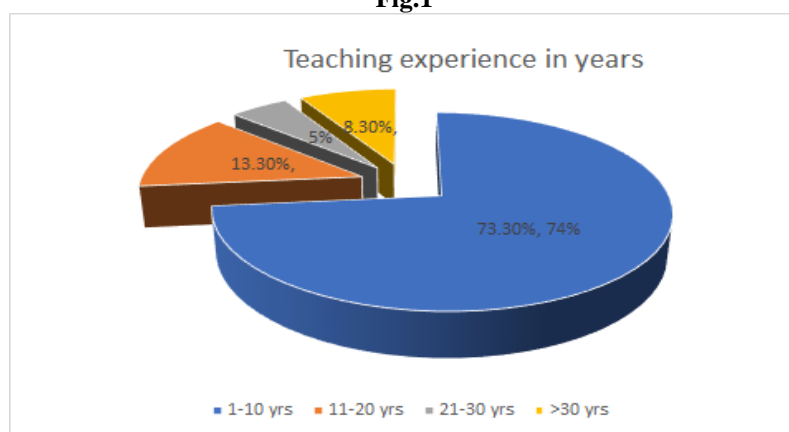
Inclusion and exclusion criteria: No such.

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 one by Microsoft excel 365 packages.

III. Observation And Results

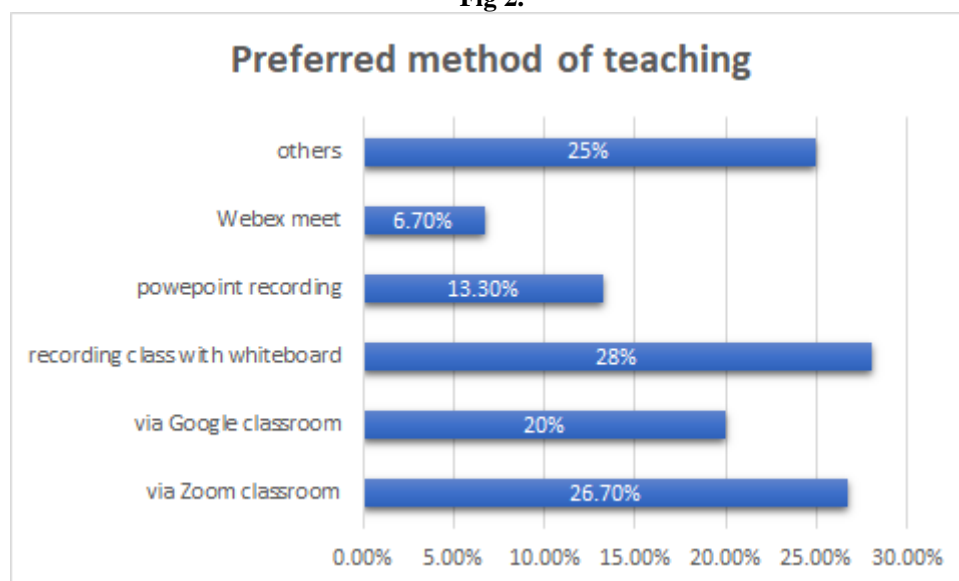
A total of 52 teachers of different disciplines of M.B.B.S curriculum were approached, 35 responded positively (67.30%).

Fig.1



73.3% of them had no previous experience of taking online classes, and 26.7% had so. 66.7% were preclinical teachers and 33.3% were teachers from the clinical side.

Fig 2.



When the medical faculties were asked about students' feedback responses, they responded that 80% of students gave feedback in the form of asking queries, via different platforms. they also gave feedback about the

acceptability of the online classes they had taken part in. 53.3% of students preferred online face to face classes and 20% of them preferred recorded classes and the rest of them had preferences for both. Probable causes of acceptability of different types of classes had different opinions, like as follows,

Fig 3: Causes of preferring online face to face classes

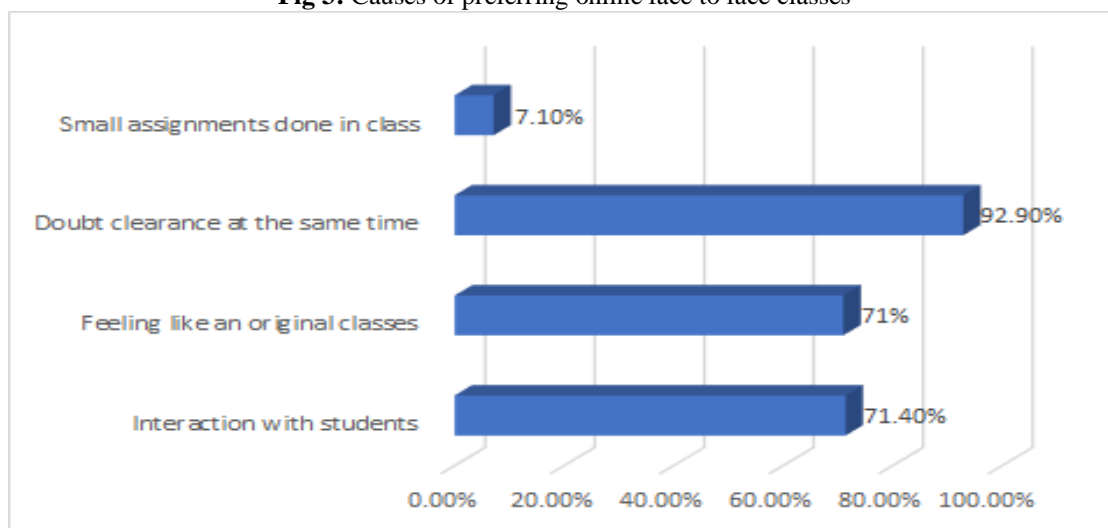
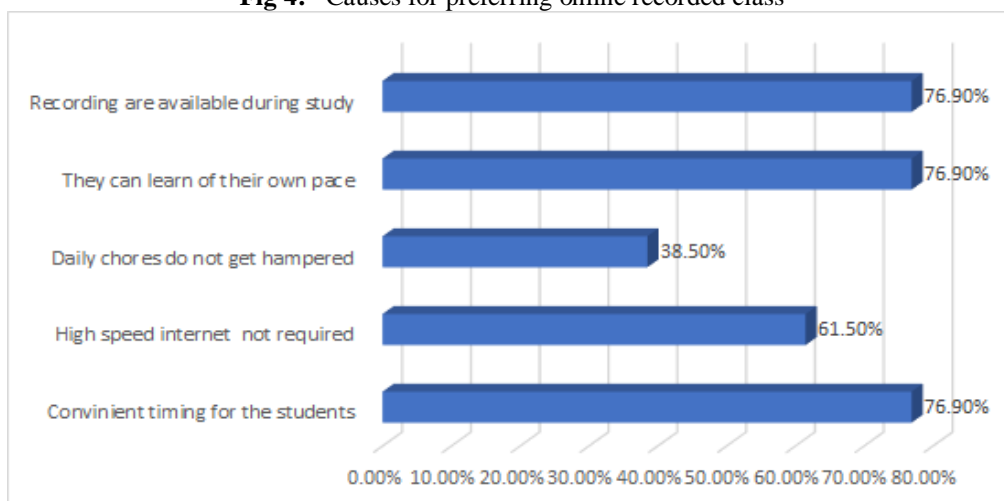


Fig 4: Causes for preferring online recorded class



When students asked questions, those were answered by the teachers with different aids, like over telephone, via email, through WhatsApp group conversation, or by sharing a video link.

In different medical disciplines, practical classes were not taken properly, but some disciplines managed to give some idea of the classes, by demonstrating the procedures online (36.4% cases), by linking YouTube videos to either e-mail or WhatsApp group of the students.

Online examinations were also conducted in some disciplines as 86% of teachers answered so when asked. The MCQ based questions were set in examinations. 80 to 100% of students attended the examination and scored about 80% marks on average.

IV. Discussion

It was a questionnaire-based cross-sectional study. 52 medical teachers of various clinical and preclinical departments were approached, in whom 38 teachers consented for the same. A semi-structured Google form was prepared and distributed over e-mail to the faculties in this single-blinded study where they answered the questions anonymously.

45% of teachers when asked responded that internet connectivity problems. Depending upon the availability of the internet some faculty preferred uploading a recorded class in a different format, and other faculties preferred live-streaming classes. Though they had mixed responses about the method of teaching, 28%

of teachers took classes in whiteboard recording, 26.70% via Zoom classroom, 20% preferred Google classroom, 6.70% took classes via Webex meeting. 25% preferred non-specified modes.

When teachers took feedback from the students about the classes, some voted for live-streaming classes, and others prefer recorded classes.

Causes of preferring face to face classes, 92.90% students thought they can clear doubts at same classes, 71% students felt like they were in the original class, direct interaction with teachers and friends help them to learn more in 71.40% student's opinion and 7.10% thought that small assignments could be done related to the topic discussed.

Students who preferred recorded classes had a different opinion. For future reference the recorded classes would be available (76.90%), they learn at their own pace (76.90%), high-speed internet need not required (61.50%), daily routine not hampered (38.50%), and convenient timing for the students (76.90%).

They found some disadvantages too, the most prominent problem they complained was of internet availability and connectivity, classes were missed for that reason.

Some free opinions came into the focus, like, online teaching is absolutely necessary for the present situation, though it could not replace classroom teaching but may be useful as an adjunct of the same. Near future, it might replace the theory classes, but not useful for the clinical and practical classes. Some teachers opined that as it is a newer field of teaching and many newer experiments could be added on that. It should be continued even past the pandemic. It needed more refinement and brought it to the common system of teaching in all the disciplines to decrease the variation in teaching.

The above discussion pointed out that online teaching has both advantages and disadvantages.

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' hardware and software use, perception of educational technology (ET) in general, online behaviors, perception of ET use in the school, and demographic pieces of information. They concluded that 'medical students' ET needs differ between preclinical and clinical years. Technology supporting ubiquitous mobile learning and health information technology systems at the hospital and outpatient clinics can be integrated into clerkship curricula¹.

Online classes need strategies to engage students. In a study by Shuhong Luo and Melanie Kalman, made a series of summary videos for students' assignments, then investigated their impact on students' learning. Investigators used exploratory sequential mixed method research design: qualitative phase, quantitative phase. After that they analyzed data and found summary videos had little impact on the learning of the nursing students, after that, they formulated better teaching strategies. Then the result indicated that the summery videos helped facilitate students' achievements and reinforce previous knowledge, engaging students cognitively, emotionally and socially².

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 use the mobile phone for online textbooks (70%), medical podcasts (60%), online lectures (50%), medical calculators (75%)³. So, this study revealed that medical education can be provided by the above means also.

The Ebola Virus epidemic and civil war in Liberia left the country in need of strengthening the health workforce. E-learning in medical education provided learning opportunities for students, developed faculty competencies and assisted with the retention of healthcare workers⁴.

A blended classroom consisting of traditional classroom plus online classes were compared with the traditional classroom teaching in a study in a Chinese nursing school with 2nd year nursing students, they prefer blended classes rather than traditional classes⁵.

So, it is a big shift from teacher-oriented classroom teaching to student oriented online teaching where teachers guide the students "how to learn". As many modes of information starting from text, PowerPoint presentation, podcast, 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 focused on students' engagement and active learning, will emerge as a new concept of teaching, if proper strategy will be taken before designing the classes. Accessibility of the internet and proper designing of the practical classes are the major loopholes of this kind of teaching.

V. Conclusion

As stated in the introduction and objective, purpose of the study was to explore the ideas and experiences shared by medical teacher after online teaching classes they took. They expressed their opinions explicitly, and both pros and cons were pointed out. It was a simple and well- designed study. The method was well validated and reproduced easily in future. It is an era of 'new normal', and forced to think us differently to pursue the normal curriculum being confined at home. With this study we can now have fair idea what are the advantages and disadvantages of the online classes and what could we do in future to bridge the gaps. So, we

can now understand the prospects of online classes and after bridging the holes, new strategies have to be made so that new curricula will be made which include both online classes and conventional classroom teaching.

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