Teachers' Perception on Virtual Teaching Learning Activities and Assessment: Web-based Study on a Non-Government Medical College in Bangladesh

Dr. Mehrunnissa Khanom[1], Dr. Afroza Hoque[2], Dr. Parvez Iqbal Sharif[3], Dr. Abu Talha Md Mahi Uddin[4], Dr. Md. Ali Hossain[5] & Prof. Muslim Uddin Sabuj[6]

Abstract

Over last few months, educational institutes across the globe have been forced to close the campuses and switch to virtual classes. Learning is a hard job and studying online can make someone feel isolated, confused or discouraged without proper guidance. The current paper presents the results of a questionnaire-based cross-sectional study conducted in November 2020 on teachers of Chattagram International Medical College, a non-government medical college in Bangladesh. Altogether 52 teachers of CIMC participated in the study, which corresponded to 85% response rate. More than 90% teachers preferred screen-share during the class, half of the teachers considered internet connectivity as most challenging issue in taking class. Remarkable findings in closed questionnaire reflected interest among the faculty for online class, well-maintained discipline in the class, appropriate topic selection, satisfactory ownership of device for online class, non-preference of online class as a good substitute of face-to-face class and partial preference to keep virtual background as an option for teaching even after resuming face-to-face class. Key recommendations from the study included institutional support regarding internet connectivity and logistics, effective interaction with the students to make the classes more meaningful as well as proper training to the teachers to enhance proficiency in online classes. Finally, virtual class can never totally replace face-to-face class; however, this intelligent skill can be kept as an option for teaching in selective circumstances even after pandemic is over and face-to-face classes have been resumed.

Key words: *virtual class, teachers' perception, medical education in COVID-19*

1 Associate Professor (cc), Medicine, Chattagram International Medical College
2 Assistant Professor, Medical Education Unit, Chattagram International Medical College
3 Associate Professor, Community Medicine, Chattagram International Medical College
4 Lecturer, Department of Dental Anatomy, Chattagram International Dental College
5 Associate Professor, Oral & Maxillo-facial Surgery, Vice Principal, Chattagram International Dental College
6 Academic Co-ordinator, Chattagram International Medical College

Author of correspondence: Mehrunnissa Khanom, Associate Professor (cc), Medicine, Member, Medical Education Unit, Chattagram International Medical College.
Email: drmehrun.k@gmail.com

Introduction

Though the technology and concept of online education is new, the concept is over 170 years old. Distance learning was born as a correspondence course offered in Great Britain where the instructor sent teaching materials and received students' feedback through email. The landmarks in the subsequent steps were creation of internet in 1960, development of educational computer

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game in 1979, establishment of Electronic University Network (EUN) in 1984, collaboration with America online in 1992, Computer Assisted Learning Center (CALC) in 1994, Open Course Ware Project (OCWP) introduced by MIT in 2002, rapid expansion of online teaching as a popular educational system in next years and the abrupt transition of whole educational system all over the world in COVID-19 pandemic[1-3]. Teaching face-to-face and teaching online are qualitatively different; both the teacher and the learner can feel the differences. Apart from simulating the real-life teaching materials in virtual platform, teaching online requires an extra component of logistic support including device as well as internet connectivity. Learning is a hard job and studying online can make someone feel isolated, confused or discouraged without proper guidance. An effective online teacher should make intentional efforts to communicate encouraging messages to each learner and the group as a whole.

Over last few months, the world is witnessing histories of human sufferings, overwhelmed health-care system as well as confinement of a large population in the wake of COVID -19 pandemic. Educational institutes across the globe have been forced to close the campuses and switch to virtual classes. COVID crisis brought online classes into a brighter spot than ever before. Online learning makes educational courses and programs available to those who live a significant distance from a campus; also plays a major role in preventing spread of a pandemic during the crisis period [4]. However, virtual teaching in medical field is a new experience in most of the institutions. Abrupt closures of face-to-class gave least opportunity to both the faculty and students to get the curriculum adopted with the new option of virtual class and classroom. Chattagram International Medical College started taking online classes for MBBS students from 8th May, 2020 and had been continuing it following a structured schedule endorsed by the academic council of this institution. A questionnaire-based observational study was conducted on MBBS students of Chattagram International Medical College, Chattogram in July, 2020 which highlighted the students 'perspectives on online classes [5]. As a continuation process, the current study was conducted to assess the teachers' perception on online classes and assessment for students of Chattagram International Medical College (CIMC).

Materials and methods

It was a questionnaire-based cross-sectional study conducted from November 17 to November 23, 2020 on teachers of Chattagram International Medical College who took online classes and gave informed consent to be included in the study. The procedural plan has been explained in figure 1.
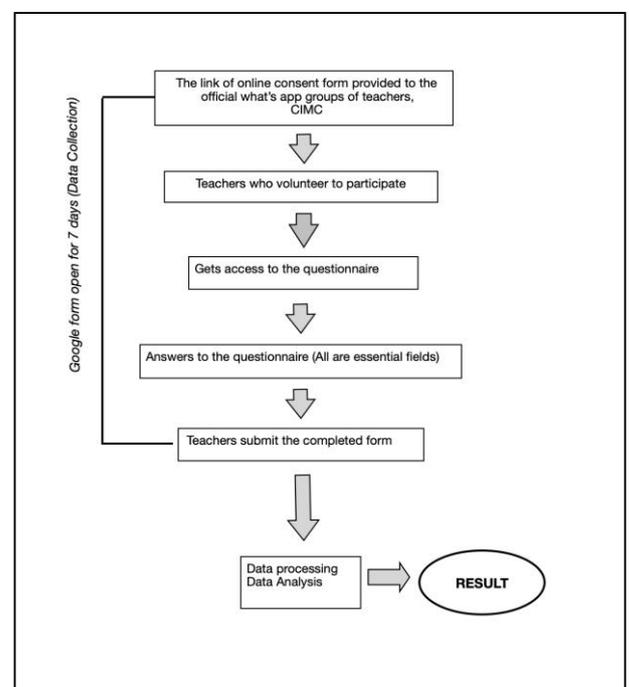

Fig 1: Flow chart of study procedure

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After getting ethical clearance from institutional review board, the link of electronic consent form was provided to the official what's app group of teachers of all phases of CIMC; the teachers who gave online consent to participate in the study got access to the pre-tested questionnaire. The questionnaire was in google form, it remained open for one week, it was then locked and proceeded for data check, entry and analysis.

Result

Altogether 52 teachers of CIMC participated in the study, which corresponded to 85% response rate. Table I shows detailed breakdown of number of teachers from each phase.

Table I: Distribution of participants among phases

Phase (CIDC)	No of Participants
Phase I	18
Phase II	2
Phase III	10
Phase IV	22
Total	52

The questionnaire included 2 open questions (illustrated in figure 1 and figure 2) and 11 closed questions (compiled in Table II).

Among all, 90.4% teachers preferred screen-share and 1.9% preferred oral deliberation of lecture as teaching tools of online class.
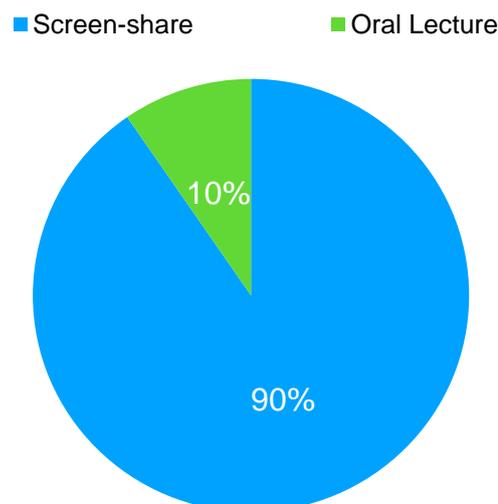

Fig 2: Options of online teaching tools preferred by the teachers

Table II: The response of participants to individual closed questions

Question	Response							
	Always		Most of the times		Sometimes		Never	
	Number	%	Number	%	Number	%	Number	%
Are you feeling interest in taking online classes?	12	23%	21	40%	15	28.8%	4	7.7%
Are the students in time in the online classes ?	11	21%	30	57.7%	10	19.2%	1	1.9%
Are the topic selections of online classes appropriate for you?	21	40%	28	53.8%	3	5.8%	0	0%
Are you comfortable in preparing the online classes?	18	34.6%	21	40%	13	25%	0	0%
Are the sound and visibility clear during the class?	0	0%	41	78.8%	11	21.1%	0	0%
Could you interact with the students in the class?	3	5.8%	11	21.1%	38	73%	0	0%
Do you have appropriate device for online classes?	24	46.2%	19	36.5%	8	15.4%	1	1.9%
Do you face difficulty in your own internet connectivity?	1	1.9%	22	42.3%	23	44.2%	6	11.5%
Do you find online assessment effective for evaluation of students?	2	3.8%	3	5.8%	25	48%	22	42.3%
Do you feel online class as a good substitute of face-to-face class?	1	1.9%	10	19.2%	11	21.1%	30	57.7%

Question	Response							
	Always		Most of the times		Sometimes		Never	
	Number	%	Number	%	Number	%	Number	%
Do you prefer virtual background as an option for teaching even after resuming face-to-face class?	4	7.7%	8	15.4 %	22	42.3%	18	34.6 %

Nearly one fourth of teachers always felt interested in taking online class, 68.8% felt interest in online classes sometimes or most of the times and 7.7% never felt interested. Regarding students' discipline in attending online classes, 78.7.7% responses were 'always' and 'most of the times'. There was remarkable 0% 'never' answers to the following queries: appropriateness of topic selection, comfortability in preparing online classes, clear sound and visibility during the class and interaction with the students in the class. More than 80% of teachers owned appropriate device for online classes always or most of the times. Difficulty in own internet connectivity was experienced 'most of the times' by 42.3% and 'sometimes' by 44.2% participants. Regarding online assessment for evaluation of students, 42.3% never felt it effective and 48% felt it effective sometimes. While asked if online class would be felt as a good substitute of face-to-face class, 57.7% participants never felt so. Keeping virtual background as an option for teaching even after resuming face-to-face class scored a 'sometimes' response by 42.3% participants.

The respondents were asked about what they felt as most challenging issue in taking online class; majority (50%) participants mentioned internet connectivity, followed by co-operation from students (27%), technical expertise (21%) and device for online class (2%) as the contributors (Fig 2).
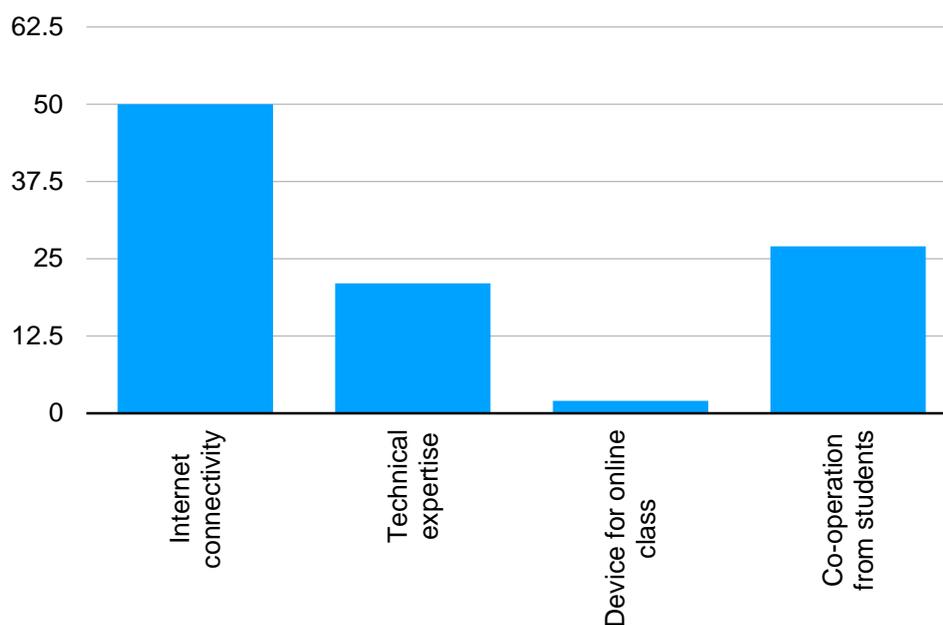
Fig. 2: Teachers' perception as most challenging issue in taking online class

Discussion

The current study assessed the teachers' perception regarding online teaching in a non-Government medical College of Bangladesh. This study presented own point of view of 85% of target population in the web-based survey. More than 90% teachers preferred screen-share during the class, half of the teachers considered internet connectivity as most challenging issue. Remarkable findings in closed questionnaire reflected interest among the faculty for online class, well-maintained discipline in the class, appropriate topic selection, satisfactory ownership of device for online class, non-preference of online class as a good substitute of face-to-face class and partial preference to keep virtual background as an option for teaching even after resuming face-to-face class.

A study was performed by Abhinandan Kulal and Anupama Nayak investigating student-teachers' perception on online class in graduate and post-graduate students in Dakshina Kannada and Udupi District of Karnataka. In this study, teachers had mixed overall opinions about online class, it indicated that the main reasons for teachers not conducting online classes were due to technical issues; some teachers also mentioned that they felt insecured in private online tools. like the Zoom app[7].

An online survey was conducted by Xiaozhe Yang from February 20 to February 25, 2020; the survey targeted teachers ranging from primary to senior high school teachers from 23 provinces and cities in China [8]. In this study, 52.12% teachers strongly supported and 2.11% strongly opposed online teaching. 38.84% of respondents showed a high willingness to incorporate and normalize online teaching in their daily teaching practice once the epidemic is over. This study also explored lack of proper training about online teaching among teachers.

Disclosure
The authors declare no conflict of interest.
Limitation of the study

This study drew sample from a single centre, the results might not be generalised.

Conclusion

Change is inevitable and intelligence lies in the ability to adapt to change. An abrupt change in education system due to COVID pandemic not only brought online teaching to a brightest spot, but also posed many challenges to the users to get adopted with the new option of virtual class and classroom. Key recommendations from the current study includes institutional support to strengthen internet connectivity and logistics for online classes, effective communication as well as interaction with the students to make the classes more interesting and meaningful, proper training to the teachers to enhance proficiency in preparing and taking online classes. Finally, virtual class can never totally replace face-to-face class; however, this intelligent skill can be kept as an option for teaching in selective circumstances even after pandemic is over and face-to-face classes have been resumed.

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