



PERCEPTION OF MEDICAL STUDENTS ON EFFECTIVENESS ON USE OF E-TEACHING DURING GLOBAL LOCKDOWN PERIOD OF COVID -19 PANDEMIC

Dr.Pranjali Parikshit Muley and Dr.Parikshit Ashok Muley

Associate Professor Department of Physiology at Datta Meghe Institute of Medical Sciences, Wardha

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A B S T R A C T

Background: During the Covid -19 Pandemic the educational institute were forced to close for long time which lead to starting of e teaching classes to cover the curriculum of the students.

Aims and Objectives: The present study was carried out to find out the perception of medical students about the effectiveness, benefits and challenges of e teaching.

Material and Method: A validated structured questionnaire was given to 350 medical students and the data was collected and analyzed.

Result: Out of 350, 58.4% students have used e teaching resource previously while 64 % students encountered difficulties while implementing newer e-learning module.76.6% respondents are interested in guidance on e learning.78.8% students have used Whatsapp as a common learning forms to communicate with their faculties.75.6% students found this communication is useful and about 56% students agree that e-teaching is beneficial for learning.40.7% students think that implementing e-teaching would improve their performance.41 % respondents agreed to its cost effectivity. 23.2 % students think that e-teaching will help in better understanding of the concept than traditional teaching methods .50% respondents agree that E-teaching would help to learn concept on your own at their own pace while 86.9% respondents find easy availability of resource to access e-teaching mediums .58.1% students agreed that e teaching has advantages while 47.98 % students agree that it is disadvantages for them.47.2 % students think that E-teaching will make them to skip traditional classes.54.7% students would like to use zoom application while 30.2% are using Google classroom . 63.3% students wish to continue to be taught their conceptual and self explanatory portion of curriculum by virtual learning only. Students gave suggestions of conducting exams which is time bound and compulsory. Also they suggest for regular online assignments and video sharing and conferencing of practical and clinical skills. They need more interactive online sessions to be conducted by faculties.

Conclusion: e teaching may be having practical based limitations but still it is proving to be useful tool for knowledge based understanding. During the global lockdown period of Covid Pandemic, the online teaching platforms are proving to be guiding sources to the medical students.

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INTRODUCTION

All educational Institutes and Universities were forced to close during global lockdown period to prevent the spread of COVID -19. The closures have come with challenge for medical teachers to conduct online teaching programs. Due to this scenario, the nature of the classroom has changed suddenly from traditional method of interaction with students to now sending voice notes, recording lectures, use of screens for long periods, giving assignments and evaluating student's progress. So various educational institutes around the world are searching to find best practices for online learning.

penetrated within the educational systems.¹ In response to significant demand, many online learning platforms are offering free access to their services, like Zoom, Google Classroom, Microsoft Team etc.

During this Pandemic situation our institute has started e-teaching program for medical students. This study was carried out with the main aim to understand the perception of the students towards this sudden shift of taking online teaching from traditional method of teaching. The result of this study can be utilized to understand the effectiveness of online teaching program. Based upon the results required changes can be made by including newer learning styles, modified e teaching strategies and tools for students learning in upcoming years.

*Corresponding author: **Dr.Pranjali Parikshit Muley**

Associate Professor Department of Physiology at Datta Meghe Institute of Medical Sciences, Wardha

MATERIALS AND METHODS

The study was conducted on 350 medical students with age group of 18-25 years of Datta Meghe Institute of Medical Sciences, Wardha. They were given brief idea about the study and informed consent was taken. A structured and validated feedback questionnaire was designed and given to the participants. The study was approved by Institutional Ethical Committee (IEC). The questionnaire includes students perception about effectiveness, benefits, advantages, disadvantages and the challenges of e-teaching .

RESULTS

Figure 1 gives data of year wise distribution of student participated in survey & Figure 2 shows percentage distribution of advantages of online teaching program.

Table 1 gives data of perception of students on benefit and challenges of e teaching.

The responses were collected from the all students along with their suggestions. The statistical analysis was done by descriptive statistics.

The following results were obtained

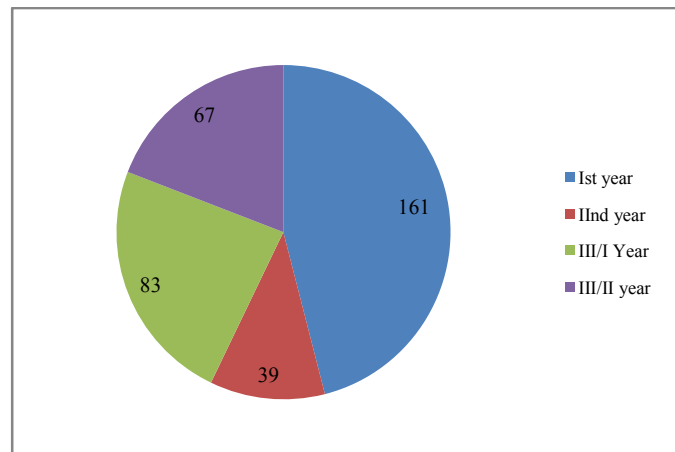


Figure 1 Year wise distribution of the students participated in survey

Table 1 The perception of students on benefits and challenges of E teaching

Question	Response	No. of students responded	Total (in %)
Have you used E-teaching resource previously?	Yes	199	58.4
	No	142	41.6
Are you interested in guidance on e learning?	Yes	256	76.6
	No	78	23.4
Do you use e-learning forms to communicate with your faculties?	Yes	277	82.4
	No	59	17.6
Do you find this type of communication useful	Yes	251	75.6
	No	81	24.4
Do you find E-lectures/tutorials beneficial for learning?	Strongly agree	35	10.4
	Agree	153	45.5
	Disagree	14	4.2
	Neutral	134	39.9
Do you think that implementing e-teaching would improve your performance	Yes	137	40.7
	No	70	20.8
	Don't know	130	38.6
Do you think that E-teaching is a cost effective media for learners	Agree	136	41

Do you think that E-lecture/ tutorials would help in better understanding of the concept than traditional teaching methods?	Neutral	174	52.4
	Disagree	22	6.6
Do you think that E-teaching would help to learn concept on your own at your own pace.	Strongly agree	17	5.1
	Agree	60	18.1
	Neutral	121	36.6
	Disagree	128	38.7
Do you find easy availability of resource to access e-teaching mediums ?	Don't Know	5	1.5
	Yes	285	86.9
Do you think that there are any advantages of using E-teaching as a medium to learn-	No	43	13.1
	Strongly agree	32	9.8
Do you think that there are any disadvantages of using E-teaching as a medium to learn-	Agree	158	48.3
	Neutral	122	37.3
	Disagree	15	4.6
Do you think that E-teaching would make students to skip traditional classes-	Strongly agree	15	4.64
	Agree	140	43.34
	Disagree	41	12.69
Are you getting distracted while using e-teaching methods?	Neutral	127	36.5
	Yes	152	47.2
Difficulties encountered by the students while implementing newer e-learning modules and tools.	No	170	52.8
	Lack of Internet connectivity	192	64
Which type of online applications you would prefer for e- teaching program?	Lack of computer/laptop/Smartphone	11	3.7
	Limited skills to use technology for e learning	31	10.3
Do you wish to continue to be taught your portion of curriculum by e-teaching	Any other	66	22
	Zoom	174	54.7
	Google classroom	96	30.2
	Microsoft team	22	6.9
Do you think that E-teaching is a cost effective media for learners	Any other	26	8.2
	Yes	193	63.3
Do you think that E-teaching is a cost effective media for learners	No	112	36.7

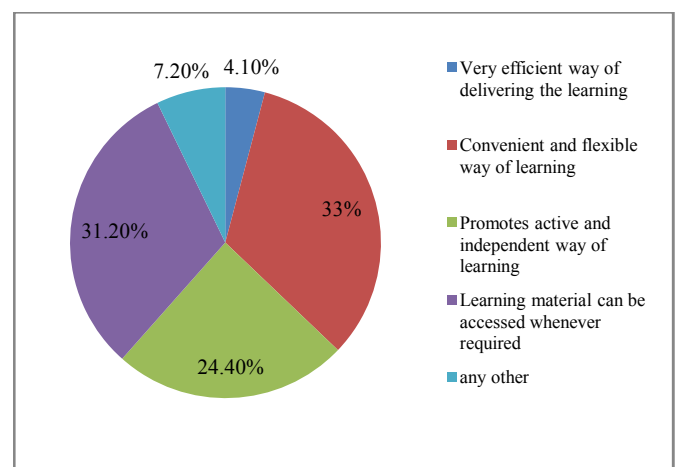


Figure 2 Advantages of e- teaching

DISCUSSION

In this age of connectivity, students are tech savvy and they are gaining educational knowledge through various online platforms. Many online learning methods are available as an effective tools to expand the possibilities of teaching and

learning in the health profession fields.² UNESCO reported that about 70% student population around the world has been impacted following the global lockdown due to Covid19. During this period online meetings has increased to about 313 % according to Goggle trends. Also online learning platforms have increased by 108 %. Also there is increase in searching for help in taking online classes to teach students by 111%. So according the current situation, online teaching programs were implemented in various educational institutes in order to cope up with the loss time to complete syllabus. This study was conducted in order to assess the perception of students about the effectiveness of such online teaching program through validated and structured questionnaire.

In the study, the questionnaire was given to 350 medical students who had undergone online teaching program during lockdown period. The study has gender distribution of 63.4% females and 36.6% were males. 58.4% of students have used e-teaching resource previously. 76.6 % respondents are interested in taking guidance on e learning.

Out of the various e-learning resources to communicate with faculty, 78.8 % of students were using Whatsapp and only about 10 % students used emails. 75.6% of the students agreed that this communication is useful for them as it serves as a useful platform for the teacher to interact and share the teaching resources with them.

56% students agree that e-teaching is beneficial for learning and 40.7% students think that implementing e-teaching would improve their performance. 41 % respondents agree that e teaching is cost effective for them while others disagree because of heavy charges of internet and connectivity problem. 23.2 % students think that e-teaching will help in better understanding of the concept than traditional teaching methods and 38.7 % others are not agree because they feel traditional method is best. It has been undeniable that e-learning is equivalent to traditional classroom methods in regard to students' knowledge gain and performance.^{3,4}

50% respondents agree that E-teaching would help to learn concept on your own at their own pace. 86.9 % respondents find easy availability of resource to access e-teaching mediums. 58.1% students agreed that e-teaching has advantages as it is convenient and flexible way of learning due to easy access to learning material whenever required.

47.98 % students agree that there are disadvantages as learning is only knowledge based not practical based while 12.69 % disagree. 47.2 % students' think that E-teaching will make them to skip traditional classes. 35.5 % students get distracted due to lack of face to face interaction and as they face challenge due to lack of classroom environment. 64 % students encountered difficulties while implementing newer e-learning modules and tools due to lack of internet connectivity and limited skills to use technology for e learning.

54.7% students would like to use zoom application for online teaching as they consider it better for interaction and has features like screen sharing, whiteboard, annotation and chat. While about 30.2% are using Google classroom where the recorded links can be put and assessment can be done.

While many of the respondents think that some of the topics like conceptual knowledge, self explanatory diagram, theoretical topics from must know areas can be very well

taken through online teaching program. While 63.3% students wish to continue to be taught their portion of curriculum by e-teaching. Participants also suggested that there should be online exams which should be conducted regularly which should be time bound and compulsory. Also they suggested for weekly online assignments and video sharing of practical and clinical skills. MCQ and quiz based questions can be provided to students of the topic being taught covering every aspect and discussion on the same. They need many more interactive online sessions to be conducted by faculties. Some of the students prefer traditional teaching way of learning as they are not able to concentrate due to lack of classroom environment and lack of constant internet connectivity.

Many studies have been collected data with regards to the benefits, challenges and effectiveness of e-learning in regards to various learning styles.

Oblinger and Hawkins indicated that e- learning has transformed from a fully-online course to using technology to deliver part or all of a course independent of permanent time and place.⁵ Katherine Schilling *et al* study was on the design and effectiveness of an interactive, Web-based curriculum on Evidence Based Medicine in family medicine.⁶

In Warnecke E *et al* study showed that e-learning used for medical students were effective for increasing their study performance and they were willing to use it as a reference tool for study management.⁷

In a study conducted by Corell A *et al* who assessed the effectiveness of the use of a competitive learning tool on the academic achievement and satisfaction. The students using tools had better academic performance.⁸

Guttman J *et al* who systematically analyzed the use of digital and non-digital learning resources by medical students. It was observed that there was a high prevalence and acceptance of digital learning resources.⁹

The study conducted by Mahajan M.V. *et al* concluded that e-learning has its benefits from a student's perspective and it will have a positive influence on their performance with better understanding of their courses.¹⁰

Thus it shows that students are finding the online teaching program is useful & advantageous for their academic improvement.

CONCLUSION

The study conclude that the, e teaching may be having practical based limitations but still it is proving to be useful tool for knowledge based understanding. The study also concluded that students were finding online teaching program advantageous for improving academic performance and that some topics should be covered under online teaching program only. Those online teaching platforms are proving to be guiding sources to the medical students even during the challenging time like lockdown period of Covid Pandemic.

References

1. Shraim K, Khlaif Z. Students' readiness towards elearning. A case study of virtual classrooms for secondary education in Palestine. 3rd Annu Forum elearning [Internet]. 2010;1-11.

2. George PP, Papachristou N, Belisario JM, *et al.* Online eLearning for undergraduates in health professions: A systematic review of the impact on knowledge, skills, attitudes and satisfaction. *J Glob Health.* 2014;4(1):1–17.
3. Gormley GJ, Collins K, Boohan M, Bickle IC, Stevenson M. Is there a place for e-learning in clinical skills? A survey of undergraduate medical students' experiences and attitudes. *Med Teach.* 2009;31(1):e6–e12.
4. Paechter M, Maier B, Macher D. Students' expectations of, and experiences in e-learning: Their relation to learning achievements and course satisfaction. *Comput Educ.* 2010;54(1):222–229.
5. Oblinger D and Hawkins B . The Myth about E-learning (Educause review) vol. 41, no. 1 (January/February 2006): 14–15.
6. Schilling K, Wiecha J, Polineni D, Khalil S. An interactive web-based curriculum on evidence-based medicine: design and effectiveness. *Fam Med.* 2006;38(2):126–32.
7. Warnecke E, Pearson S. Medical students' perceptions of using e-learning to enhance the acquisition of consulting skills. *Australas Med J.* [Internet]. 2011;4(6):300–7.
8. Corell A, Regueras LM, Verdú E, Verdú MJ, de Castro JP. Effects of competitive learning tools on medical students: A case study. Ito E, editor. *PLoS One.* 2018;13.
9. Gutmann J, Kühbeck F, Berberat PO, Fischer MR, Engelhardt S, Sarikas A. Use of Learning Media by Undergraduate Medical Students in Pharmacology: A Prospective Cohort Study. Vrana KE, editor. *PLoS One.* 2015;10(4).
10. Mahajan M V, Kalpana. R. A study of students' perception about e-learning. *Indian J Clin Anat Physiol.* 2018;5(4):501-507.

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