

Perceptions of Medical Students' about E-Learning during Covid- 19

HUDA ABBAS¹, MISBAH UL QAMAR², SADIA BASHIR³, ALI SARFRAZ⁴

¹Assistant Professor, Community medicine, Quaid e Azam Medical college, Bahawalpur

²Assistant Professor, Physiology department, Akhtar Saeed Medical and dental College, Lahore

³Assistant Professor, Pathology department, Quaid e Azam Medical college, Bahawalpur

⁴Assistant Professor, Occupational Health, IPH, Birdwood road, Lahore

Correspondence to Dr. Huda Abbas, Assistant Professor, Community Medicine

ABSTRACT

Aim: Medical student's outlook about implementation of E-Learning in Covid-19

Methodology: A cross-sectional study was at Quaid-e-Azam Medical College, Bahawalpur on undergraduate medical students from March 2021 to August 2021. Self-administered online questionnaire was used to obtain the perception of medical students about E-learning, effects of this pandemic on medical education and implementation problems of E-learning in Pakistan. E mail and other electronic social media including Face Book, WhatsApp and Instagram were availed to broadcast the questionnaire.

Results: Out of 218 respondents, the majority (71.9%) agreed the closure decision of college to prevent the lives from rapid spread of pandemic. 64% students considered E-Learning best available solution during lockdown. E-Learning initiative has a close connection with the residence and opinion regarding this program. Students faced limited connection and bandwidth, new and unfamiliar process of learning, limited technical help, inflexible time despite problems in connection during online examination and unavailable advantage of face to face learning facilities.

Conclusion: Majority of students took E-learning positively. But it becomes challenging due to unavailability of essential required electric technology for students.

Key words: E learning, medical students, covid-19

INTRODUCTION

Covid-19 disease was declared worldwide pandemic by WHO in March 2020¹. The pandemic affected all the industries as well as education sector of the world². Medical education was affected adversely due to social distancing as it involves oral lectures, lab work, physical contact through hands with samples and also with patients for proper treatment³. This pandemic made the use of E-learning obvious. E-learning provides the facility to avail the lectures whenever and wherever you feel convenient. It provides video and audio conferencing⁴. E-learning is most helpful for medical students of developed countries while students of underdeveloped or less developed countries face problems due to unavailability of proper support⁵.

METHODOLOGY

A cross-sectional study was conducted after IRB permission at Quaid-e-Azam Medical College, Bahawalpur on undergraduate medical students from March 2021 to August 2021. Self-administered online questionnaire was used to obtain the perception of medical students about E-learning, effects of this pandemic on medical education and implementation problems of E-learning in Pakistan. The principal investigator developed a predesigned web-based questionnaire. The study investigators finalized the content accuracy and internal validity of the survey through multidimensional input. It was sent to 10 medical students of outside colleges and modifications were made to make it more effective. The questionnaire contained 16 questions in three parts. SPSS version 24 was used to enter and analyze data.

RESULTS

There were 218 undergraduate medical students.

Table 1: Demographic Characteristics

Variables	N(%)
Male	122(55.9%)
Female	96(44.1%)
Residence	
Rural	135(61.9%)
Urban	83(38.1%)
Internet service	
Yes	168(77.1%)
No	50(22.9%)
Laptop	
Yes	156(71.5%)
No	62(28.5%)
Smart phone	
Yes	196(89.1%)
No	22(10.1%)

Fig. 1: Suitable time to re-start learning

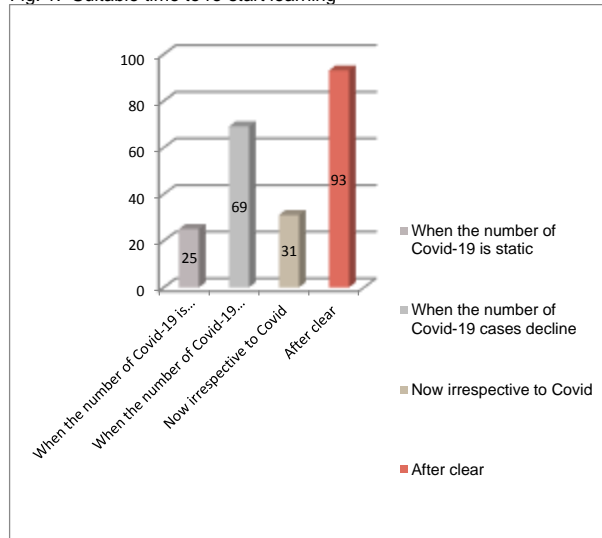
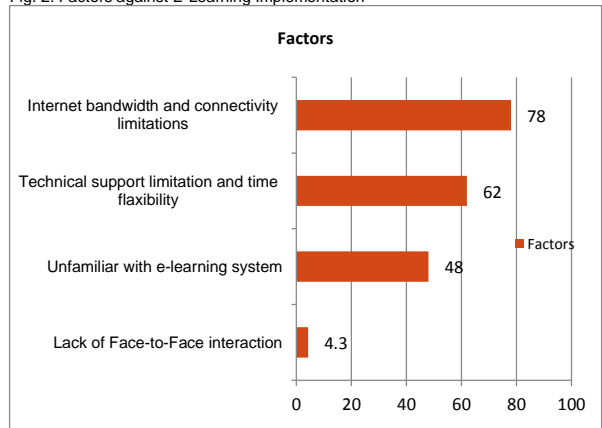


Fig. 2: Factors against E-Learning Implementation



Received on 24-08-2021

Accepted on 17-01-2022

Table 2: Perceptions of Medical Students in Covid-19 Effects

Statement	Strongly Agree	Agree	Disagree	Strongly Disagree	Likert's score
The closure of college is useful to prevent COVID-19	89 (40.8%)	68 (31.1%)	36 (16.5%)	25 (11.4%)	3.6
The worldwide closure is useful to prevent COVID-19	83 (38.0%)	92 (42.2%)	34 (15.5%)	09 (4.1%)	3.5
If the online education is started soon, you will agree and attend the session	91 (41.4%)	76 (34.8%)	31 (14.2%)	20 (9.1%)	3.1
This is high time regarding the continuing online education	72 (33.0%)	99 (45.4%)	25 (11.4%)	22 (10.0%)	2.8

Table 3: Residence/ closure of college and E-Learning

		Students residence		P value
		Rural	Urban	
Closure of college is useful to prevent COVID	Yes	120(55%)	72(32.5%)	0.55
	No	15	11	
If online education is started soon, you will attend the session and exams?	Yes	130(59.6%)	71(32.5%)	0.003
	No	12	05	
This is high time Regarding the continuing of online education	Yes	129(59.1%)	74(33.9%)	0.04
	No	08	07	

DISCUSSION

This study shows that our students of Quaid-e-Azam Medical College, Bahawalpur have no familiarity to this form of learning. In our system, even affecting factors are not well documented that can make it more or less effective. Students consent is the major factor that helps in decision making to choose E-learning productively. Therefore, the survey conducted at Quaid-e-Azam Medical College, Bahawalpur to know the consent and insight of the medical students regarding E-learning can help the authorities to set implement E-learning in such poor circumstances. Due to lack of access to computer technology, it is difficult for university medical students to switch to E-learning as an alternate to conventional style of education. Disparities rise in order to access E-learning tools. Connection and communication structures, lack of expert staff and cost are the factors that influence E-learning in Pakistan adversely. At this time Pakistan is making ever-increasing use of information and communication technology in higher education institutions⁶.

In this survey, almost two third majority was of the view that efficient internet connection is more costly the affordable bandwidth is less effective which gives low speed and takes more time to download media and necessary files. This low cost service never enables the students to attend live lectures. Students living in far and wide areas face more difficulties to low signals and unavailability of the interest service. This weak internet system creates hurdles for E-learning of medical education particularly in low income countries⁷. A previous study from India showed horrific data that 82 out of 201 scheduled E-Learning classes were postponed because of technical issues or unavailability of the host⁸.

This study shows that only one third number of students use computers. This miserable figure is comparable to survey conducted in Saharan African regions⁹. A preceding learning carried out at Ghana stated that mobile learning increases the collaboration among educators and students¹⁰.

Our study shows that students hesitate to adopt E-learning due to the reason that they are unaware of it advantages as compared to formal education system. Therefore proper

awareness about this system among medical student is necessary. It was well thought-out a prohibiting factor for online education by 15% participants of the survey. There administration should ensure the engagement of the students while developing strategies for E-learning. Summary of the responses of the open questions revealed that 42.4% students worried that they should make necessary preparations.

CONCLUSION

This study can help to evaluate the insight of the perception regarding E-learning of medical students in a less developed regions in case of an emergency as Covid-19. Majority of medical students show positive perception about E-learning.

REFERENCES

1. World Health Organization. Coronavirus disease 2019 (COVID-19) situationreport. 2020.
2. Ayittey FK, Ayittey MK, Chiwero NB et al. Economic impacts of Wuhan 2019-nCoV on China and the world. *J Med Virol*. 2020;92(5):473–5.
3. Del Rio C, Malani PN. 2019 Novel Corona virus-Important Information for Clinicians. *JAMA*. 2020;323(11):1039–40.
4. Belfi LM, Dean KE, Bartolotta RJ et al. Medical student education in the time of COVID-19: Clin Imaging. 2021;75:67–74.
5. Frantz JM, Bezuidenhout J, Burch VC et al. The impact of a faculty development program for health professions educators in sub-Saharan Africa: an archival study. *BMC Med Educ*. 2015;15:28.
6. Nour SM. Information and Communication Technology in Sudan. *Contrib Econ*. 2015.
7. Bediang G, Stoll B, Geissbuhler A et al. Computer literacy and E-learning perception in Cameroon: the case of Yaounde Faculty of Medicine and Biomedical Sciences. *BMC Med Educ*. 2013;13:57.
8. Agrawal S, Maurya AK, Shrivastava K et al. Training the trainees in radiation oncology with telemedicine as a tool in a developing country: a two-year audit. *Int J Telemed Appl*. 2011;2011:23–8.
9. Ameh N, Kene T, Ameh E. Computer knowledge amongst clinical year medical students in a resource poor setting. *Afr Health Sci*. 2008;8(1):40–3.
10. Annan NK, Ofori-Dwumfuo GO, Falch M. Mobile Learning Platform: a case study of introducing m-learning in Tertiary Education. *GSTF J Comput*. 2017;2(1).