

# Perception of Fourth year MBBS students regarding online learning during Covid-19 pandemic

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## ABSTRACT

**Aim:** To assess the perception of fourth year MBBS students regarding online learning during Covid 19 pandemic.

**Study Design:** Cross sectional survey.

**Setting:** Department of Community Medicine, Lahore Medical and Dental College, Lahore.

**Duration of study:** Four months, from April to July, 2022.

Study population: All students registered in fourth year MBBS.

**Methodology:** A structured questionnaire was used to collect data from 154 study participants. It consisting of two sections. The first part consisted of background information of study participants. The second portion assessed the perception of students regarding online education during Covid 19. The data was recorded and analyzed using SPSS version 21. Data were described in the form of frequencies and percentages and presented as tables.

**Results:** Study participants included 51% females, 57%-day scholars and 83% who had done FSc. Around 62% did not find online learning effective, 73% had communication difficulties, 75% liked self-directed approach of online learning but 74% thought that it was difficult to collaborate with each other, 71% found time management easy, though it was difficult to ask questions and receiving answers (59%). Around 78% of students perceived lack of satisfaction compared with class room learning, 66% preferred face to face learning and 73% found online education less comprehensible than class room activities. Among students, 53% recognised online learning as enjoyable and 34% wanted it to be done regularly, as 32% students never experienced any difficulty during online sessions. The main issues faced in online activities were absence of internet connection (85%), poor computer skills (73%), electricity breakdown (85%) and lack of concentration (80%).

**Practical implication:** The present study highlighted that majority of fourth year MBBS students preferred classroom learning in comparison with online sessions. In light of pandemic, online education has proven valuable in managing sudden crisis, which is why it was important to understand the student perception regarding online education during covid-19 at Lahore Medical and Dental College, Lahore.

**Conclusion:** Compared with males, higher number of females complained of lack of internet access and having poor computer skills. Seminars and regular training must be undertaken by medical colleges for their staff and students to inculcate interest and highlight the importance of online education as one of the tools for learning. Online education must be made more interactive and student centered to create interest and improve student concentration.

**Keywords:** Perceptions, online learning, MBBS students, Covid-19 pandemic, face to face education, communication barriers,

## INTRODUCTION

In March 2020, World Health Organization (WHO) identified COVID-19 was a worldwide pandemic.<sup>1</sup> It has changed human life all over the world. In order to combat the COVID-19 virus, the world over government had implemented a number of restrictions, including physical distancing, closer the sport activities, travels ban wearing of masks and even lockdown in different geographical areas<sup>2</sup>. The lockdown had a direct impact on many areas such as economy, medical and educational sectors. The COVID-19 triggered a partial or total lockdown, in which people were advised to stay at home<sup>3</sup>.

As a result of these policies educational institutions were shut down and instead online teaching methodology was adopted by educational institutes. The educational institutions were put under a lot of pressure to deal with the change from on campus to online teaching methods during this period of time. Online learning and E learning was the best way to save the education and continue academic year. E leaning stand for electronic learning, based on electronic and electronic devices.<sup>2</sup> With the closure of educational institutes, the need for good infrastructure and the ability to conduct online classes is more evident.<sup>3</sup> As technology changes rapidly, online learning is still a relatively new concept<sup>4</sup>. Online classes also have limitations, including poor internet connection quality, problems with internet access, and low digital skills among students<sup>5,6</sup>.

Using e-learning to teach medical students is extremely helpful. It requires a well-designed strategy and a more active

approach to successfully incorporate online learning into the curriculum. The success of e-learning depends on many factors, including accessibility, usage of appropriate methods, course content, and assessment criteria<sup>7</sup>.

There is a process of online learning between students and teachers using electronic media in a network simultaneously in different locations without a direct contact between them.<sup>8</sup> More and more applications support online learning today, such as WhatsApp, Socializing and delivering messages are some of the functions of WhatsApp, which is used by both teachers & students. In contrast, teachers use WhatsApp to communicate directly with their students. Teachers can even make voice recordings and video calls<sup>9</sup>. An application called Google Classroom facilitates communication between teachers and students by creating classrooms. With this, students can give, receive, and assess assignments at home or wherever they want, regardless of class time or location<sup>10</sup>.

The present study was conducted with a view to assess the perception of fourth year MBBS students on their experience with online teaching and learning activities. The results of the study can guide us to plan and implement online education more effectively, with a student centered approach.

## METHODOLOGY

A descriptive cross-sectional study was conducted at Lahore Medical and Dental College (LMDC), Lahore. Fourth year MBBS class of 2022 was the study population. A non-probability convenience sampling technique was used to recruit 154 study participants who agreed to participate in the study. The data was

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collected from April to July 2022. A structured questionnaire was used as the study tool. The first part of the questionnaire consisted of background information on gender. The second part assessed the perception of students regarding online education during Covid19 pandemic.

The data was recorded and analysed using SPSS, version 21. Data were described in the form of frequencies and percentages and presented as tables and graph. The association between gender and students' perceptions was assessed by applying Chi square test, with  $p \leq 0.05$  as the cut-off point.

Prior approval for the study was taken from the LMDC Institutional Review Board (IRB). Verbal consent was also taken from study participants for publication of data, assuring anonymity.

**RESULTS**

**Gender of fourth year MBBS students:** Among the study participants, 79(51.3%) were females and 75(48.7%) were males.

**Perceptions of of fourth year MBBS students about effectiveness of the online education during the Covid19 pandemic:** Among the 4<sup>th</sup> year class, 154 students availed online education during Covid19 pandemic. Majority of the participants(62%) did not find online learning effective. According to the perception of 73% medical students, communication with teachers and classmates was difficult in online sessions. Around 75% of students preferred self-directed online learning approach but 74% of students also thought that it was difficult to collaborate with each other during online classes. According to 71% of students, time management was easy during online session but in the opinion of 59% of them, asking questions and receiving answers to these questions was very difficult during online activities (Table 1).

**Perception of fourth year MBBS students about online learning, satisfaction and challenges:** In the opinion of 78% of students, online learning does not give the similar satisfaction as given by class room learning. Around 66% preferred face to face learning as compared with online activities. Online education less comprehensible than class room activities for 73% of students. However, online learning was an enjoyable activity for 53% of students and 34% wanted it to be a regular activity (Table 1).

Table 1: Perception of fourth year MBBS students about online learning (n=154)

Perceptions	Yes	No
<b>Perception about effectiveness of online learning</b>		
Online learning is effective (OLE)	58(37.7%)	96(62.3%)
Communication with classmates and teachers is difficult online (CCT)	113(73.4%)	41(26.6%)
Self- directed learning is better online (SDL)	116(75.3%)	38(24.7%)
Collaboration with other students is better during online education (CSO)	40(26.0%)	114(74.0%)
Time management for studies is better in online education (TM)	110(71.4%)	44(28.6%)
Asking questions and receiving answers is difficult during online activities (AQR)	91(59.1%)	63(40.9%)
<b>Perception about online learning satisfaction and challenge</b>		
Both online and class room learning gives similar satisfaction (SL)	34(22.1%)	120(77.9%)
Preferred medium of my learning is online classes (PML)	52(33.8%)	102(66.2%)
Online education is less comprehensible than class room activities (LCA)	113(73.4%)	41(26.6%)
Online learning is enjoyable (LE)	81(52.6%)	73(47.4%)
Online education should be a regular activity (RA)	52 (33.8%)	102(66.2%)

As seen in Figure 1, a small number of the students (32%) never experienced difficulties during online education. The main issues were lack of access to internet connection (85%), lack of computer skills (73%), electricity breakdown (85%) and lack of concentration (80%).

Association of gender and perceptions of fourth year MBBS students about online learning.

Perception of of fourth year MBBS students about challenges and difficulties of online learning.

Figure 1: Perception of challenges and difficulties of online learning (n=154)

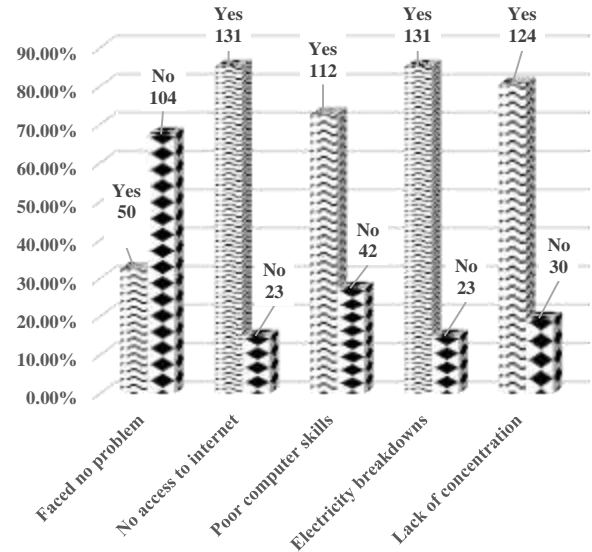


Table 2: Factors affecting perception of fourth year MBBS students about online learning (n=154)

Perceptions about online learning		Gender		P value
		Male	Female	
Effective	Yes	31(41.3%)	27(34.2%)	0.360
	No	44(58.7%)	52(65.8%)	
Communication is difficult	Yes	56(74.7%)	57(72.2%)	0.724
	No	19(25.3%)	22(27.8%)	
Facilitates self-directed learning	Yes	61(81.3%)	55(69.6%)	0.092
	No	14(18.7%)	24(30.4%)	
Facilitates student collaboration	Yes	24(32.0%)	16(20.3%)	0.097
	No	51(68.0%)	66(79.7%)	
Better time management	Yes	51(68.0%)	59(74.7%)	0.359
	No	24(32.0%)	20(25.3%)	
Questions/answers difficult	Yes	50(66.7%)	41(51.9%)	0.062
	No	25(33.3%)	38(48.1%)	
Similar satisfaction as in class room learning	Yes	20(26.7%)	14(17.7%)	0.181
	No	55(73.3%)	65(82.3%)	
Preferred medium of learning	Yes	28(37.3%)	24(34.4%)	0.362
	No	47(62.7%)	55(69.6%)	
Less comprehensible	Yes	53(70.7%)	60(75.9%)	0.458
	No	22(29.3%)	19(24.1%)	
Enjoyable	Yes	37(49.3%)	44(55.7%)	0.429
	No	38(50.7%)	35(44.3%)	
Should be a regular activity	Yes	27(36.0%)	25(31.6%)	0.568
	No	48(64.0%)	54(68.4%)	
Never experienced problems	Yes	25(33.3%)	25(31.6%)	0.823
	No	50(66.7%)	54(68.4%)	
No access to internet is an issue	Yes	59(78.7%)	72(91.1%)	0.030
	No	16(21.3%)	7(8.9%)	
Poor computer skills are an issue	Yes	49(65.3%)	63(79.7%)	0.045
	No	26(34.7%)	16(20.3%)	
Power breakdowns is an issue	Yes	61(81.3%)	70(88.6%)	0.206
	No	14(18.7%)	9(11.4%)	
Poor concentration is an issue	Yes	61(81.3%)	63(79.7%)	0.804
	No	14(18.7%)	16(20.3%)	

Among fourth year MBBS students, compared with males, higher number of females ( $p=0.030$ ) complained of lack of internet access. More females than male students admitted to having poor computer skills ( $p=0.045$ ).

**DISCUSSION**

The primary purpose of this study was to examine the preference and perception of students regarding the online classes during

Covid 19 pandemic. The result of this study indicates that face to face learning was perceived more positively than online learning in term of social presence, interaction, satisfaction and overall quality. According to our survey, majority (78%) of the students preferred in class learning in comparison with online learning. An earlier study also endorsed this finding, in which 80% of non-medical students also opted for in class face to face learning<sup>11</sup>. Around 62% of our students felt that online learning was less effective than class room teaching. In contrast to this perception<sup>12</sup>, in their research on impacts of e-learning on students, found that students found online learning more effective than traditional classes.

According to the present research results, 73% of students thought that communication with teachers and classmates were difficult during online sessions. Similar findings were obtained in an Iraq based study, where 55% of students also felt difficulties in communication with their classmates as well as teachers during online learning.<sup>11</sup> Another matching study also quoted that 56% of students found it difficult to interact with teachers during online session time<sup>13</sup>.

In our study, 75% of students liked the self-directed study approach in the online learning. In a previous similar study conducted<sup>20</sup> in India, 76% of their study participants also preferred the self-directed style of online teaching.<sup>14</sup> In the present study, 71% of students felt that one of the positive outcomes of online learning is good time management. The results of a comparable study among Indonesian showed

In our study, 59% of students had difficulties in asking questions and receiving answers during online sessions. A previous study also received similar response from 46% of their non-medical research participants<sup>11</sup>.

Around 85% of our students complained of lack of internet connections in their home towns and similar percentage also faced electricity shortage issues, making it difficult for them to attend the online sessions. Recently a study reported similar problems by 76% of students, as reasons for missing online lectures<sup>11</sup>.

In the present study, compared with the male students, more female students complained of lack of internet access ( $p=0.030$ ). In a previous comparable study from India, students have also complained against the access and quality of internet during Covid 19 lockdown ( $p=0.015$ )<sup>16</sup>. However gender differential in internet access was not discussed in any study. In our study, higher number of day scholars than boarders complained of lack of internet access ( $p=0.023$ ). This may be as whole college and hostels have internet connection for 24 hours, seven days a week.

Among our students, compared with males, higher number of females admitted to having poor computer skills ( $p=0.045$ ). A Nigeria based study conducted, also highlighted that a statistically significantly higher number of males were computer literate compared with female medical students<sup>17</sup>.

**Limitation of the study:** The present study was conducted in only one private Institution of the country, thus it lacks generalizability.

## CONCLUSION

The present study highlighted that majority of fourth year MBBS students preferred classroom learning in comparison with online sessions. Several challenges and difficulties were experienced by our students during online education. These challenges included external factors like unstable internet connections and electricity,

along with internal dynamics such as time management and concentration issues.

**Conflict of interest:** Nil

**Recommendations:** Seminars and regular training must be undertaken by medical colleges for their staff and students to inculcate interest and highlight the importance of online education as one of the tools for learning and online education must be made more interactive and student centered to create interest and improve student concentration.

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