

# Pros and Cons of Online Classes During COVID-19 in Comparison to Physical Classes

Muhammad Sohaib Javed<sup>1</sup>, Ayesha Iftikhar<sup>2</sup>, Muhammad Abdullah<sup>3</sup>, Uzma Sagheer<sup>4</sup>, Humayun Suqrat Hasan Imam<sup>5</sup>, Tahir Ismail<sup>6</sup>

- 1 *Final Year MBBS Student, Aziz Fatima Medical and Dental College, Faisalabad Pakistan*  
Collection of data, References collection
- 2 *Final Year MBBS Student, Aziz Fatima Medical and Dental College, Faisalabad Pakistan*  
Data collection, Helping in manuscript writing
- 3 *Final Year MBBS Student, Aziz Fatima Medical and Dental College, Faisalabad Pakistan*  
Collection of data, Proof reading
- 4 *Assistant Professor, Department of Community Medicine, Aziz Fatima Medical & Dental College, Faisalabad Pakistan*  
Designed the study, Data analysis, Proof reading, Final draft
- 5 *Professor, Department of Community Medicine, Aziz Fatima Medical & Dental College, Faisalabad Pakistan*  
Designed the study, Data analysis, Proof reading, Final draft
- 6 *Assistant Professor, Department of Community Medicine, Faisalabad Medical University, Faisalabad Pakistan*  
Helping in manuscript writing, Proof reading

## CORRESPONDING AUTHOR

**Dr. Uzma Sagheer**  
Assistant Professor, Department of Community  
Medicine, Aziz Fatima Medical & Dental College,  
Faisalabad Pakistan  
Email: uzmasagheer25@gmail.com

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## ABSTRACT

**Background:** Corona virus, formally known as COVID-19, was found at end of the year 2019, between a seafood market of Wuhan. Novel Corona Virus pandemic has created fear, anxiousness or a number of worries among the people around the world. It has affected every aspect of human life including education system of the whole world. **Objective:** This study was designed to explore the pros and cons of online learning in comparison to physical classes. **Study Design:** Cross-sectional study. **Settings:** Aziz Fatima Medical and Dental College, Faisalabad Pakistan. **Duration:** Four months from August to November 2021. **Methods:** By using non probability convenient sampling techniques 210 male and female medical students were included in this study. Pre designed questionnaire was distributed electronically through Google forms. Analysis was done by using SPSS version 23. Chi square test was used for comparison. Results were considered significant if p value was  $\leq 0.05$ . **Results:** In our study 180 (85.7%) participants were agreed that there is lack of concentration during online classes. 191 (91%) said that it effects on clinical skills. 125 (59.5%) believed that there is no interaction between students and teachers. 148 (70.5%), 168 (80%) and 178 (84.8%) agreed that there are lack of face to face interaction, group discussion and collaboration due to online classes. **Conclusion:** COVID-19 affected the traditional learning methods around the world. Online learning is protecting students and teachers health due to COVID-19 pandemic, but it is not as effectual as traditional learning. In developing countries like Pakistan, online learning cannot bring out required results due to many technological and financial reasons.

**Keywords:** Corona virus, Physical classes, Online learning.

## INTRODUCTION

Corona virus, formally known as COVID-19, was found at end of the year 2019, in a seafood market in Wuhan. The virus is transmitted from person-to-person through respiratory droplets. World health organization (WHO) stated COVID-19 as a pandemic after evaluation of its fast spread and severity around the world. They also advised of social distancing as an effective measure to decrease the spread of this deadly pandemic. This pandemic has created fear, anxiousness or a number of worries among the people around the world. It has

affected every aspect of human life including education system of the entire world.<sup>2</sup>

Due to rapid spread of COVID-19, closure of educational institutions was the best preventive measure. Reports of United Nations showed that this pandemic is affecting 1.6 billion learners in greater than 190 countries in all continents which is one of the largest disruptions in history of education system. Schools and other academic spaces closure has affected 94 percent of the world student population and condition is more devastating in low and lower-middle countries as it is up to 99 percent.<sup>3</sup>

To prevent the loss of academic activities due to lockdown in greater parts of the world, online education has become one of the effective measures to make educational activities possible. However, student responses regarding online education showed that most of them were anxious towards this type of learning, graduation ceremony disappointment and also online teaching is entirely different than the traditional physical classes.<sup>2</sup>

Both teachers and students should have technical knowledge and expertise as online learning is completely internet based learning.<sup>2</sup> A digital revolution has been created by this COVID-19 pandemic through online classes, digital books, teleconference and virtual class rooms.<sup>4</sup>

However, online learning is believed to be discriminatory among poor students as they cannot afford essential gadgets and devices for online learning. The condition is more worse in under developed and developing countries as the most of the students are unable to afford a internet connection and essential gadgets needed for online connectivity. Indeed teaching-learning process has significantly retarded by COVID-19 lockdown.<sup>5</sup>

In modern digitally advanced countries, online learning is very beneficent, but unfortunately it is ineffective in Pakistan, as in Pakistan most of the teaching and learning as well as administrative activities of education system are dealing manually. People living in rural as well as marginalized areas of Pakistan are facing lack of access to reliable and affordable internet connection which further hinders the online learning process. Students using smartphones are also unable to take benefit of online teaching as most of the online material is not accessible through smartphones.<sup>6</sup>

Due to increase use of online technologies during this pandemic, it is mandatory to evaluate their advantages and disadvantages regarding teaching and learning.<sup>7</sup> For this purpose this study was designed to explore the pros and cons of online learning in comparison to physical classes.

**METHODS**

This cross-sectional study was designed to conduct at Aziz Fatima Medical and Dental College Faisalabad from August to November 2021. Ethical approval was taken from the Institutional Ethical committee. By using non probability convenient sampling techniques 210 male and female medical students with mean age of 18 to 25 years were included in this study while students from Allied Health Sciences were excluded from study. Participants were enrolled on voluntary basis. Pre designed questionnaire was distributed electronically through Google forms. Analysis was done by using SPSS version

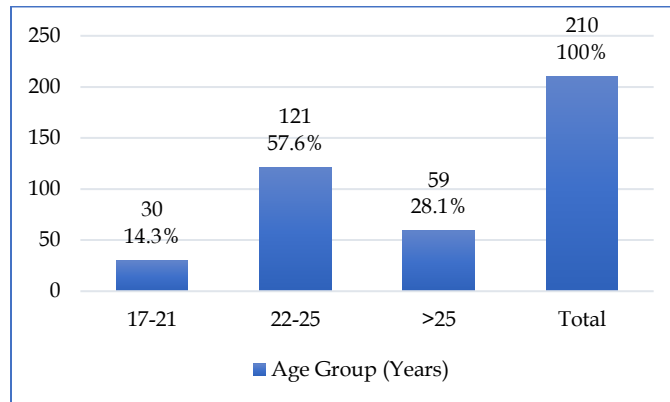
23. The demographic data was evaluated by descriptive statistics. For comparison chi square test was used. Results of the study were considered significant if p value was  $\leq 0.05$ .

**RESULTS**

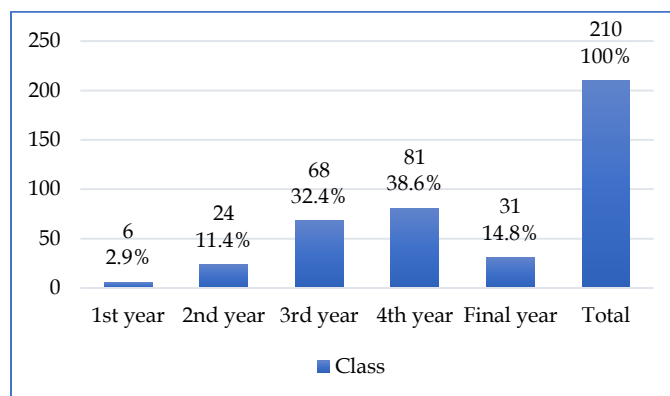
Out of 210 medical students, 42 (20%) male and 168 (80%) female medical students were included in this study, 30 (14.3%) belong to age group of 17-21 years, 121 (57.65%) were of 22-25 years and 59 (28%) have  $\geq 25$  years of age. 111 (52.9%) were day scholar and 99 (47.1%) were hostilities. Significant association was found between five years of MBBS and variables of the study with  $p < 0.00$  (Table 1).

In our study 180 (85.7%) participants were agreed that there is lack of concentration during online classes. 191 (91%) said that it effects on clinical skills. 125 (59.5%) believed that there is no interaction between students and teachers. 148 (70.5%), 168 (80%) and 178 (84.8%) agreed that there are lack of face to face interaction, group discussion and collaboration due to online classes. 162 (77.1%) thought that online classes has a strong impact on results of their examination while 142 (67.6%) believed that strong internet connection is essential for taking online classes without any disruption.

**Figure 1: Age group of participants**



**Figure 2: MBBS class distribution**



**Table 1: Comparison of variables with 5 MBBS classes**

Variable	Yes	No	Don't know	Total	p-value
Lack of concentration	180 85.7%	24 11.4%	6 2.9%	210 100%	0.00
Effect on clinical skill	191 91%	16 7.6%	3 1.4%	210 100%	0.00
Time Management	147 70%	57 27%	6 2.9%	210 100%	0.00
Effects on results	162 77.1%	40 19%	8 3.8%	210 100%	0.00
Strong internet connection	142 67.6%	61 29%	7 3.3%	210 100%	0.00
Lack of face-to-face interaction	148 70.5%	58 27.6%	4 1.9%	210 100%	0.00
Lack of group discussion	168 80%	33 15.7%	9 4.3%	210 100%	0.00
Lack of collaboration	178 84.8%	27 12.9%	5 2.4%	210 100%	0.00

## DISCUSSION

Due to increase use of online technologies, it is mandatory to evaluate their advantages and disadvantages regarding teaching and learning. This study interprets pros and cons of online classes during COVID-19 in comparison to physical classes which showed that the online methods of learning are efficient source of teaching but with some drawbacks. According to students, in online teaching concentration level is lower ( $p=0.00$ ) as compared to physical classes. This is comparable to study in Jordan in which students struggled to concentrate during online classes.<sup>8</sup> This result was also found in study where students showed concerns about their concentration level.<sup>9</sup>

The results of our study showed that online teaching affects clinical skills ( $p=0.00$ ) which is in agreement of study conducted in Lahore which showed that clinical skills are disrupted during clinical skills.<sup>10</sup> Similar findings were also stated in a study conducted in Nepal.<sup>11</sup>

Our study results showed that online classes also affect their class test results (77.1%) and face to face interaction (70.5%) with  $p=0.00$  which is comparable to a study conducted in Pakistan which showed that 78.6% of the students agreed that face to face interaction is necessary for learning.<sup>6</sup> This study showed that 70% of the students were agreed that time management is one the challenge faced by them during online classes ( $p=0.00$ ) which is similar to study conducted in Nepal where 85% students also face same problem of time management.<sup>2</sup> Another similar result was shown by a study where most of the students were in opinion of time management and self-learning.<sup>8</sup>

Study results showed that 80% of the students believed that during online classes' group discussion are not

possible which is comparable with opinion of medical students of Poland.<sup>11</sup>

Study results showed there is lack of collaboration during online classes with  $p=0.00$  that is comparable to a study which stated that poor interaction between learners and facilitators, and a lack of clarity of the purpose and goals of the learning can impede the learning process.<sup>13</sup> A study showed that there is no opportunity for the students to communicate directly with their instructors in online education.<sup>14</sup> In contrast to this, study showed that 76.8% students were satisfied with student-teacher interaction.<sup>15</sup>

## CONCLUSION

COVID-19 affected the traditional learning methods around the world. Online learning is protecting students and teachers health due to COVID-19 pandemic, but it is not as effectual as traditional learning. In developing countries like Pakistan, online learning cannot bring out required results due to many technological and financial issues.

## LIMITATIONS

Non-random selection and limited sample size were the limitations of this research study. The results of this study cannot be generalized as it was a single centered study.

## SUGGESTIONS / RECOMMENDATIONS

According to WHO guidelines, we have to modify our routine activities with COVID-19 for some time period, for this purpose academic institutions have to plan a suitable and effective content, by arranging a constructive delivery system and by providing digital training to their present faculty members to improve their learning objectives.

## CONFLICT OF INTEREST / DISCLOSURE

All authors disclose no conflict of interest.

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