

## Letter to the Editor

# Students' feedback on exclusive 6-months online teaching during COVID-19 lockdown: a cross-sectional survey

Sir,

The corona virus pandemic has disrupted the human activities all across the globe and teaching-learning activity is no exception. In India, the nation-wide lockdown was announced in late March, and since then the main mode of undergraduate (UG) medical teaching has been through online classes. This is an unprecedented situation, both for medical teachers and students. Our institute initiated online classes for UG students from as early as mid-March, 2020. It has been more than 6 months of exclusive online teaching now and it was imperative to get overall feedback from students regarding its impact on their learning. It would provide useful inputs regarding utility, efficacy and opportunities to improvise further.

An online questionnaire was prepared using Google Forms and was circulated among 3 trained faculty members for validation. It was then circulated to the UG students of our institute. Participation of students was voluntary and students were asked to respond within 5 days. The responses so collected were tabulated in Microsoft Excel sheets and analyzed using descriptive analysis.

Total 272 students of different semesters responded to the questionnaire. The students were asked about the optimum number and duration of online sessions per day. 118 (43.4 %) students felt that 2 online sessions were enough for a day. 163 (59.9 %) students felt that the optimum duration of an online session should be 30-45 minutes (Tables 1, 2).

**Table 1: Adequate number of online sessions for a day (as perceived by the students).**

Number of online sessions enough for a day	Number of students (percentage)
1	43 (15.8)
2	118 (43.4)
3	85 (31.3)
4	18 (6.6)
5	6 (2.2)
More than 5	2 (0.7)

Online teaching is described as synchronous and asynchronous and thus can be through live interactive sessions on platforms like Zoom, Google Meet and Blue Jeans; or through pre-recorded video sharing (e.g.

YouTube videos). We used both of these methods, however, real time online sessions predominated. Both these methods were preferred by almost equal number of students (48.2% and 51.8% respectively). The students were also asked whether teachers were able to clear their doubts and their participation was active during online sessions. The effectiveness of online teaching depends on factors related to learner, trainer and technology. The teachers had to prepare their online sessions well in advance. 208 (76.5%) students felt that the faculty members were able to clear their doubts during online sessions either partly (39.7%) or fully (36.8%). 135 (49.6%) students wished that, in addition to physical classes, online classes should continue even after lockdown was over.

**Table 2: Optimum duration of an online session (as perceived by the students).**

Optimum duration of an online session	Number of students (percentage)
Less than 30 minutes	36 (13.2)
30-45 minutes	163 (59.9)
45-60 minutes	68 (25)
Can be more than 60 minutes	5 (1.8)

**Table 3: Advantages of online teaching as perceived by the students.**

Advantages	Number of students (percentage)
Safe and effective during pandemic	55 (20.2)
Convenient (time, place and revision)	56 (20.5)
Time saving	23 (8.5)
Efficient, interactive and promotes SDL	26 (9.6)
No advantage	99 (36.4)

Table 3 summarizes the advantages of online teaching as perceived by the students. Students felt that online teaching was a safe and convenient method of teaching during the COVID-19 pandemic. Ironically, 36.4 % students felt that there was no additional advantage of online teaching over conventional classroom teaching. These mixed responses show that online teaching cannot be the sole mode of teaching in medical colleges.

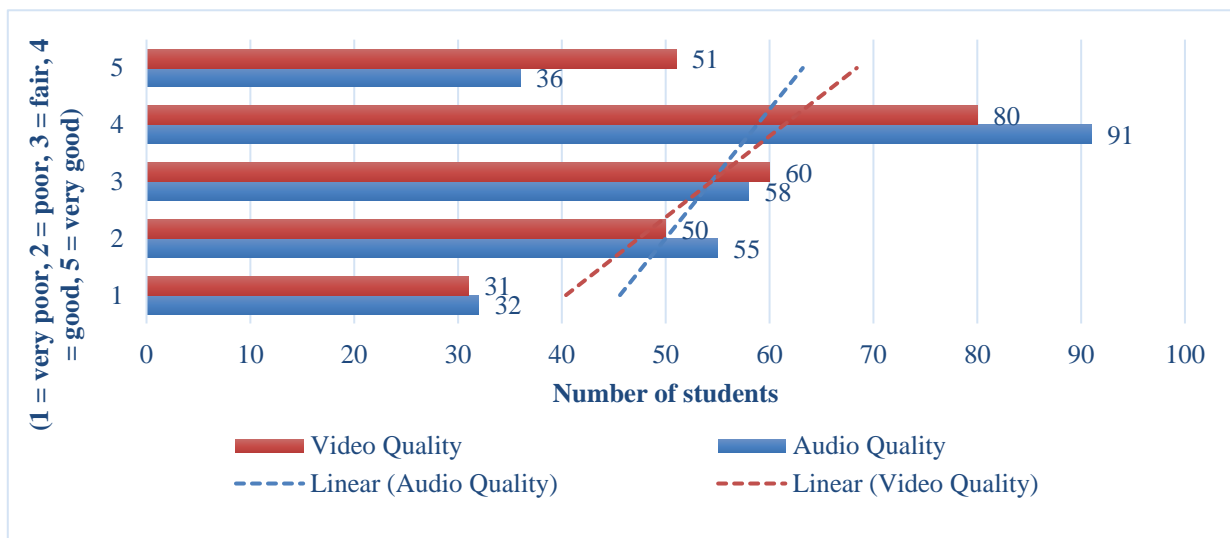
Students also felt that there was a limited scope of learning practical skills in online sessions.

The students were also asked about the limitations of online teaching (Table 4). 27.6% of them experienced one or more technical difficulties (mostly connectivity issues, sound disturbances and visual distortions) during online sessions that hindered their learning. Students were asked to rate their experience of the audio-visual quality of online sessions on a Likert’s scale. Their responses are depicted in Figure 1.

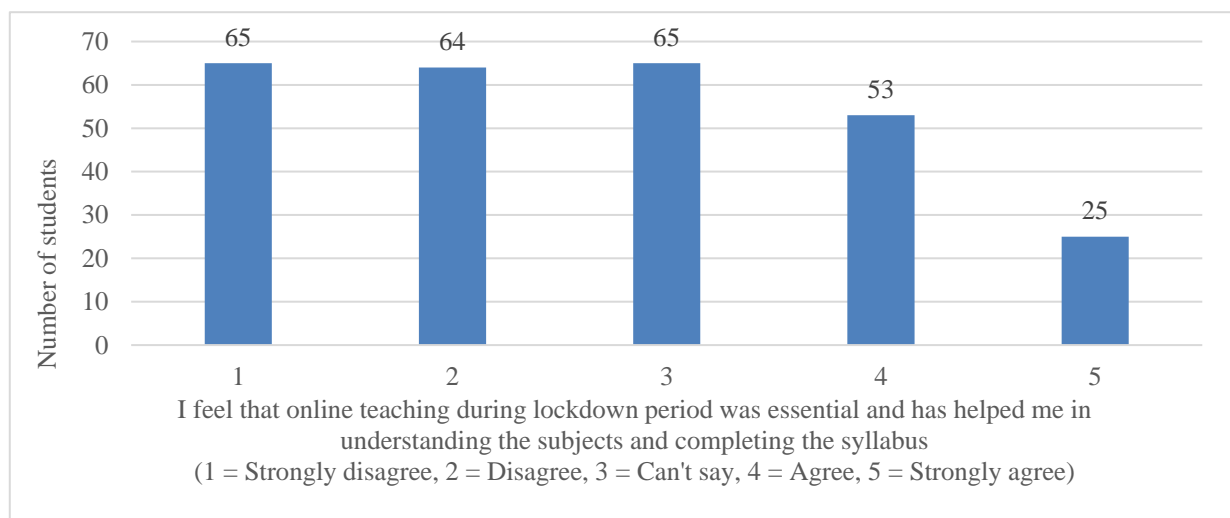
It is important that the internet speed and connectivity during an online session is good so that there is smooth conduction of the session. Frequent interruptions in internet connection can distract the attention of the students and teachers and thus hinder learning. Fortunately, such hinderances were less at our institute as can be seen from the trendlines of ratings of audio and video quality by students in Figure 1.

**Table 4: Limitations of online teaching as perceived by the students.**

Limitations	Number of students (percentage)
Limited interaction between teacher & student	51 (18.6)
Practical/ Clinical topics can’t be taught online	48 (17.6)
Technical problems (internet connection, audio/video quality)	75 (27.6)
Lack of concentration (as compared to physical classes)	26 (9.6)
Lack of physical presence is hinderance to learning	19 (7)



**Figure 1: Audio-visual quality rating by students.**



**Figure 2: Utility of online teaching during the pandemic.**

Figure 2 shows the students' rating of utility of online teaching. 78 (28.7 %) students agreed/strongly agreed that online teaching during lockdown period was essential and helped them in understanding the subjects and completing the syllabus. However, 129 (47.4 %) students felt otherwise.

It is a well-accepted fact that a blend of modes and methods are required to teach medicine to undergraduate students. The competency-based curriculum (CBC) in India, introduced from the year 2019, emphasizes on using multiple teaching learning methods (TLMs). Exclusive online teaching was hitherto uncommon in medical education. From our survey, it is clear that most students prefer not more than 2-3 online sessions, of duration 30-45 minutes each, per day. Like any mode of teaching, online teaching has its advantages and disadvantages. Though most of the disadvantages are technology related, there should be proper sensitization and training of faculty members and students in online teaching to make it more interactive and acceptable. In our survey, 129 (47.4 %) students didn't agree that online teaching helped them in completing their syllabus. The probable reason could be deprivation of social interaction due to abrupt stoppage of physical classes. Another reason could be monotony of online lectures with less opportunities for active and equal participation by all students.

Online lectures can deliver knowledge component of a competency (K and KH levels). When it comes to skills acquisition (S, SH and P levels), it remains to be proven that online delivery can do so.<sup>1</sup> There are a number of methods suggested to impart online skills training and recently a module on the guidelines for online teaching

and assessment has been released by National medical commission and shall be useful for online assessment.<sup>2</sup> It is obvious that the teacher has to plan meticulously to achieve objectives of skills training.<sup>3</sup>

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