

Evaluation of Online teaching by Undergraduate medical students of Rawalpindi Medical University amidst COVID-19 pandemic

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Author's Contribution

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Abstract

Objective: To determine the viewpoints of undergraduate medical students pertinent to online education carried out by their teachers amid the COVID-19 pandemic

Material and Methods: A cross-sectional descriptive study was carried out during August 2020 in order to evaluate the teachers with respect to their online teaching. Google forms were electronically administered to all 1st – final year medical students to gather their perspectives relevant to their respective teachers.

Results: Of the total 266 medical students, the highest proportion (53.75%) was constituted by final year MBBS students. Maximum response was received pertinent to teachers of Pathology followed by those of Surgery & Allied, Medicine & Allied, and Gynaecology & Obstetrics. Students were 100% satisfied with the online teaching attributes of Surgery & Allied Teachers while an equal proportion (92%) of students was pleased with those of Medicine & Allied and Gynaecology & Obstetrics

Conclusion: Medical students were sufficiently contented with the online teaching of their respective teachers.

Conclusion: E-learning is proved to be very advantageous in academic continuity and stability amid the COVID pandemic.

Keywords: Teacher evaluation, Google forms, e-learning, medical students.

Introduction

On declaration of coronavirus infection as a pandemic by the World Health Organization on 11th March 2020 due to its uncontrolled spread¹, global universities were instantaneously closed as per directives of Higher Education.² There was an abrupt shift from a conventional learning system to e-learning for the continuation of the academic curriculum.³ The resultant educational transformation was achieved in terms of technological modernization and digitalization.⁴

The institutional shutdown led to the confrontation of our teachers, parents, and students with an entirely novel scenario.⁵ Teachers modified their way of educational content delivery by learning the use of various digital tools.⁶ Even acquisition of clinical competencies that are deemed essential for our medical doctors was accomplished by establishing e-learning platforms.^{7,8} However, teachers' self-efficacy was determined to be of paramount significance in their adaptation to e-learning in response to institutional closure amidst the COVID pandemic.⁹

Universities of Pakistan were instantly closed on 13th March 2020 as per instructions of the Higher Education Commission (HEC). Soon universities were directed to commence online teaching by engaging the faculty members and support staff.¹⁰ HEC helped the institutes in launching Learning Management System (LMS) for their academic continuity. Vice-Chancellors of the universities put strenuous efforts not only in assisting the teachers in smooth execution of online teaching by the provision of broadband internet, orientation sessions, and necessary gadgets but also facilitated the students in the resolution of their relevant issues.¹¹

No doubt, HEC permitted degree awarding institutes to use diverse online teaching strategies for academic stability and even suggested sending CDs to those students who were deprived of broadband internet at their homes. HEC devised policy was communicated to all universities for their academic integrity and quality maintenance.¹² However, evaluation of teachers by the students is an aspect that should be focused on to further improve online teaching and achieving intended outcomes. The present study is therefore planned to evaluate the teachers of Rawalpindi Medical University who are involved in tutoring MBBS class. This research would help a great deal to enhance the learning of our medical students by pinpointing the key difficulties identified by them during online classes. Moreover, teachers will also be

able to ameliorate their teaching by determining their shortcomings.

Materials and Methods

A cross-sectional descriptive study was done among all medical students of Rawalpindi Medical University in order to get their viewpoints regarding online education carried out by their teachers amid the COVID-19 pandemic. About 266 students participated in this research during August 2020 through convenience sampling. A self-designed structured questionnaire based on a five-point Likert scale was digitally administered as Google forms through WhatsApp. Apart from percentage and frequency Mean \pm SD for each item was calculated. The data was analyzed by using SPSS version 25.0.

Results

Of the total 266 medical students enrolled in this research, most (53.75%) of our study participants were final-year MBBS students as depicted in Figure 1.

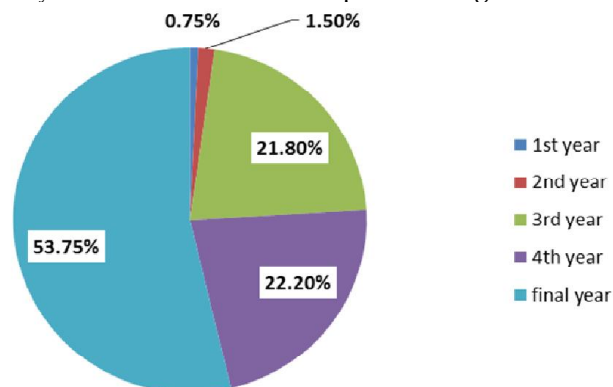


Figure 1: Year-wise distribution of respondents

This tool is determined to have excellent reliability with Cronbach's alpha of 0.97. Most of our students evaluated the Pathology teachers as illustrated below in Table 1.

Table 1: Various subject teachers evaluated by the medical students of RMU

Sr. No.	Subjects	MBBS students					Total
		1 st year	2 nd year	3 rd year	4 th year	Final year	
1.	Pathology	-----	-----	35	30	-----	65
2.	Surgery & Allied	-----	-----	-----	02	60	62
3.	Medicine & Allied	-----	-----	01	02	47	50
4.	Gynaecology / Obstetrics	-----	-----	-----	-----	25	25
5.	Paediatrics	-----	-----	-----	-----	05	05
6.	Anatomy	04	01	-----	-----	-----	05
7.	Physiology	-----	04	-----	-----	-----	04
8.	Community Medicine	-----	-----	02	20	-----	22
9.	Pharmacology	-----	-----	22	-----	-----	22
10.	ENT	-----	-----	-----	04	-----	04
11.	Ophthalmology	-----	-----	-----	01	-----	01
12.	Forensic Medicine	-----	-----	01	-----	-----	01
Total		04	05	61	59	137	266

Medical students were determined to be highly satisfied by the online teaching of their Surgery / Allied teachers as shown below in Figure 2.

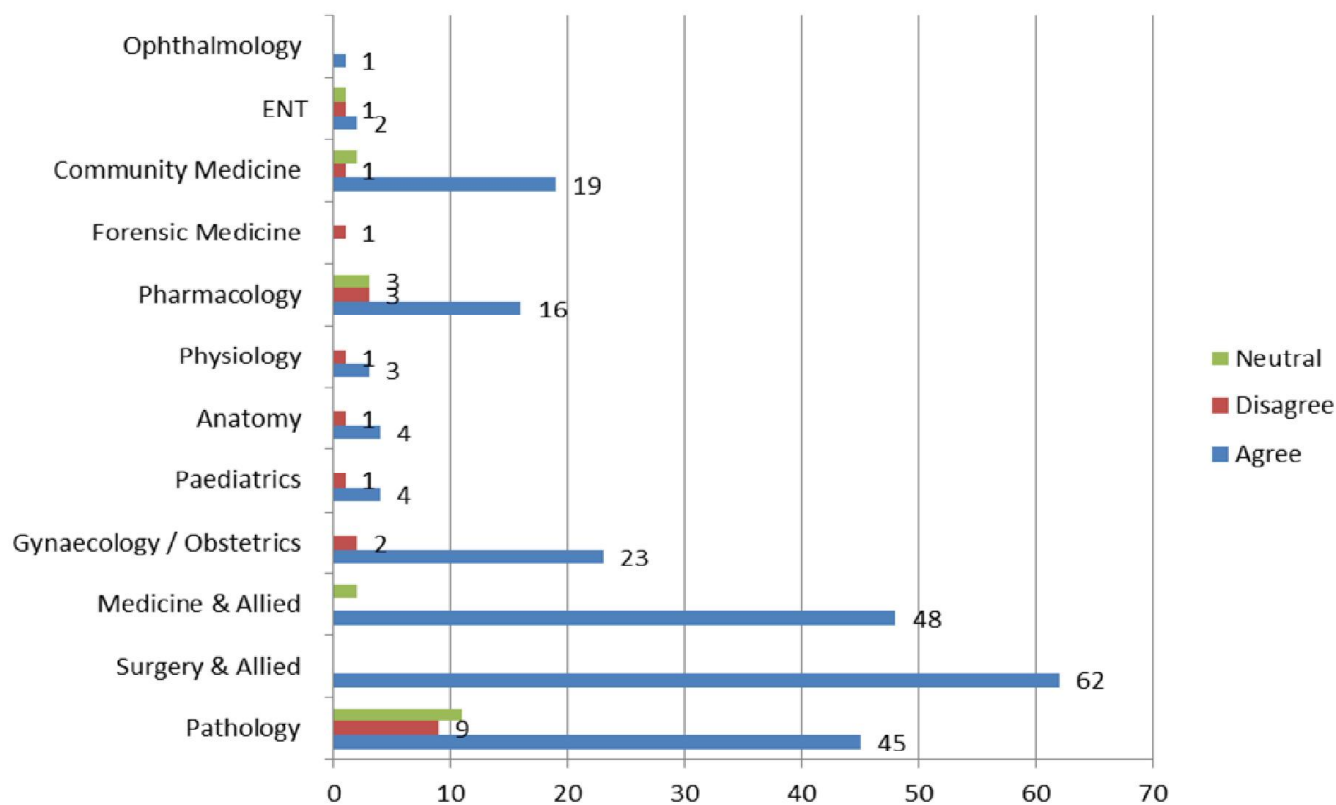


Figure 2: Level of satisfaction from online teaching by diverse subject teachers

A score of all the attributes pertinent to the quality of teaching carried out by RMU teachers was computed to be profoundly adequate as depicted below in Table 2.

Table 2: Response of attributes pertinent to attributes of online teaching at RMU

Sr.No.	Attributes	Agree	Neutral	Disagree	Mean \pm SD
1.	Teacher is well prepared for the class	20 (7.5%)	20 (7.5%)	226 (85%)	4.49 \pm 1.05
2.	Teacher plans assignments that are meant to make students problem solver and critical thinker	33 (12.4%)	35 (13.2%)	198 (74.4%)	4.12 \pm 1.22
3.	Teacher illustrates all the learning objectives to be achieved during the class	20 (7.5%)	25 (9.4%)	221 (83.1%)	4.43 \pm 0.98
4.	Teacher is flexible in accommodating individual student needs	47 (17.7%)	18 (6.8%)	201 (75.5%)	4.07 \pm 1.44
5.	Teacher makes the lecture interesting by using different teaching methodologies	39 (14.7%)	27 (10.1%)	200 (75.2%)	4.11 \pm 1.28
6.	Teacher makes the learning environment conducive to learning	36 (13.5%)	22 (8.3%)	208 (78.2%)	4.22 \pm 1.31
7.	Teacher grades fairly	21 (7.9%)	41 (15.4%)	204 (76.7%)	4.27 \pm 1.13
8.	Teacher gives me constructive feedback that helps me in improvement	37 (13.9%)	36 (13.5%)	193 (72.6%)	4.11 \pm 1.23
9.	Teacher encourages us to speak up and remain active during the session	23 (8.6%)	15 (5.7%)	228 (85.7%)	4.48 \pm 1.08
10.	Teacher provides us an opportunity to reflect on our learning during the session	33 (12.4%)	26 (9.8%)	207 (77.8%)	4.28 \pm 1.21

Discussion

Although the COVID pandemic has radically affected our educational system in terms of inadequate social support, communication difficulties, and less interaction but still stringent efforts were made in the provision of reasonable and significant curricular learning material to all the students via e-learning¹³. This pandemic might be a blessing in enabling our teachers to become skilled at distant teaching proficiencies in the best interest of their students.

Online medical education became imperative amid the COVID pandemic for the safety of both students and their loved ones due to the contagiousness of this disease¹⁴. About 75.2% of our medical students were agreed with the capability of their teachers in the usage of different teaching strategies to maintain the interest of their students and ensure better comprehension. A study by Dhawan S et al amid the COVID-19 pandemic also highlighted the need for zest, dynamicity, and interactivity to keep the students vigilant and attentive during e-learning sessions.¹⁵ Although e-learning enables the students to interact with tutors, as well as other students during interactive sessions by the usage of mobile phones or laptops with ample internet access¹⁶, the standard of online courses, can sufficiently be improved by keen interest and quality time investment in content delivery by our tutors. Psychological distress associated with the COVID crisis might have led to

disorientation and diversion of the teachers from their prime responsibilities.¹⁷ However, case-based and problem based learning approaches should be prioritized during online sessions in the best interest of our students.¹⁸

Of the total 266 medical students enrolled in our research, about 85% perceived well preparedness of their teachers pertinent to subject matter during online class while approximately 83.1% confessed that learning objectives to be achieved by the end of the digital session were adequately elaborated at the beginning of the session. Although most of the e-learning sessions carried out worldwide in response to the COVID crisis were perceived to be a substandard but appropriate resolution to these problems should be emphasized in the best interest of our students.¹⁹ E-learning done before the COVID pandemic was determined to be much beneficial in terms of versatility, conduciveness of educational climate, and employment of diverse teaching and learning modalities to ensure collaborative learning.²⁰ However, another research revealed that superficial learning among e-learners was attributed to digital incompetency and illiteracy of our teachers to varied online tools for an efficient collaborative session.²¹ However, a higher satisfaction rate among our medical students with respect to online classes conducted by our teachers might be due to the orientation sessions that were arranged specifically for their capacity building and awareness about academic digitalization.

Acceptance to online modalities for academic continuation was the only way out to intelligently tackle a critical scenario that was developed globally amid the COVID pandemic. Microsoft Teams was adapted at Rawalpindi Medical University to resume academics. This tool is quite user-friendly in terms of facilitation for collaborative work, document storage, chats, teamwork, feedback, and provision of an online meeting environment.²² In addition Google forms were also devised to gather feedback of the students as well as faculty pertinent to the pros and cons of online classes carried out at RMU. Numerous products of Google like Google Drive, Forms, Calendar, and Google Classroom, etc. were productively used for e-learning along with audio and video recording of the lectures.²³ Although 72.6% of RMU medical students praised the ability of their teachers to keep them motivated and active during online class but high dropout rate among students has been accounted for during e-learning sessions primarily due to lack of face-to-face interaction between students and teachers.²⁴ However, the learning of the students can best be monitored by raising one-to-one questions and by small group teachings. These tactics will prove beneficial in reducing the frequency of dropouts during online classes.

Conclusion

E-learning is proved to be very advantageous in academic continuity and stability amid the COVID pandemic. Teachers put their strenuous efforts into the successful execution of online classes. Interactivity during e-learning can periodically be improved by successive training.

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