Original Article

Perspectives of the faculty towards digital learning at Rawalpindi Medical University amid covid-19 pandemic

Rizwana Shahid, Shazia Zeb, Sumaira Yasmeen, Muhammad Umar, Muhammad Ali Khalid, Rai Muhammad Asghar

Department of Medical Education, Rawalpindi Medical University, Rawalpindi, Pakistan

Objective: To determine the viewpoints of the faculty members about digital learning at Rawalpindi Medical University (RMU) during COVID pandemic.

Methodology: This cross-sectional descriptive study was carried out during August 2020 among 89 faculty members of RMU with diverse designation. Data were collected by using digitally administered Google forms based on 5 point likert scale through convenience sampling. Information was gathered regarding perceived advantages and key troubles faced in smooth execution of online teaching. Data analysis was done with SPSS version 25.0.

Results: Of the total 89 faculty members, 30.4% were demonstrators, 23.6% Senior Registrars and 21.3% Assistant Professors. About 87% faculty agreed with adequate curriculum coverage during online teaching, 84% found MS Teams interface user friendly while 82% conveniently generated link for their online class. About 38% faculty confronted with internet connectivity issues while 40% were satisfied with students' response during online class. Only 22% respondents agreed with impartiality of online assessments and judgment of competencies.

Conclusion: Digital learning greatly facilitated in academic continuity during pandemic. However, provision of broad band internet facility, making sessions interactive and using diverse online assessment modalities can be helpful to much extent in justified appraisal of clinical competencies.

Keywords: E-learning, faculty, Covid-19 pandemic, curriculum.

INTRODUCTION

Coronavirus disease has not only drastically affected social and economic spheres of life but also considerably revolutionized educational institutes and learning practice worldwide.[1] Abrupt closure of educational centers became imperative for protection of everybody.[2] Their suspension interrupted the learning.[3] Therefore, all worldwide academic organizations intended to carry onwith digitalization amidst COVID-19 pandemic.[4] The instantaneous transition from conventional face-to-face teaching to digital learning in resource constrained settings was quite challenging.[5] Institutions of South Asian region were ill-equipped for e-learning. Higher Education Commission stringently directed all universities to commence online education on 18th March 2020 following sudden closure on 13th March 2020.[6]

Digitalized learning was imparted at RMU for academic continuity on 15th April 2020. All stakeholders including students, parents and teachers were endowed with technological materials and auxiliary aids for its successful execution. The faculty members as well as clerks were sufficiently oriented for audio recording and uploading of lectures on Leaning Management System (LMS) portal with intention to facilitate the students.[7] Later on orientation sessions were carried out for sudden shift to Microsoft Teams. This transition was predominantly aimed to make lectures interactive and facilitate clinical teachings through provision of multifaceted gadgets and tools.[8] Sharing of presentation, depiction of models, specimens and illustration of clinical methods on ward patients were made possible by means of versatile software applications.[9]

Quality of digitalized learning carried out across the globe should primarily be assessed to maintain educational standards.[10] The current study was therefore planned to get viewpoints of the faculty members pertinent to e-learning activities accomplished in response to pandemic within available resources. This research would be beneficial to our collaborators in appraisal of deficiencies associated with online education imparted at RMU amidst COVID pandemic.

METHODOLOGY

This cross-sectional descriptive study gathered data by means of online Google forms based on 5-point Likert scale that ranged from strongly disagree to strongly agree. Google forms were digitally administered. The data were collected from the faculty members during August 2020 through convenience sampling pertinent to

perceived benefits and the problems confronted with online teaching carried out during COVID pandemic.

Statistical Analysis: Percentages were computed for all the attributes. The data were analyzed by SPSS version 25.

RESULTS

Out of 89 faculty members, 87.6% were females. Most of faculty members comprised of demonstrators (Fig. 1). Some of the facets associated with e-learning experienced amid COVID-19 pandemic at RMU were determined to be very satisfactory and agreeable by our faculty members. Mostly (87%) faculty members were contented with curriculum coverage through online classes and about 84% teachers perceived MS Teams interface quiet handy and manageable (Fig. 2).

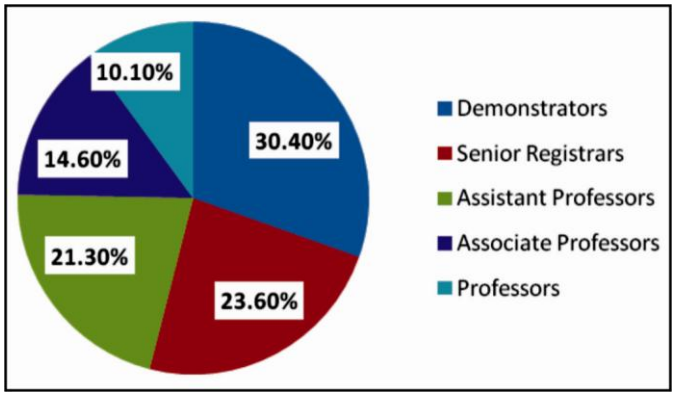

Fig. 1: Faculty members submitting feedback about e-learning.

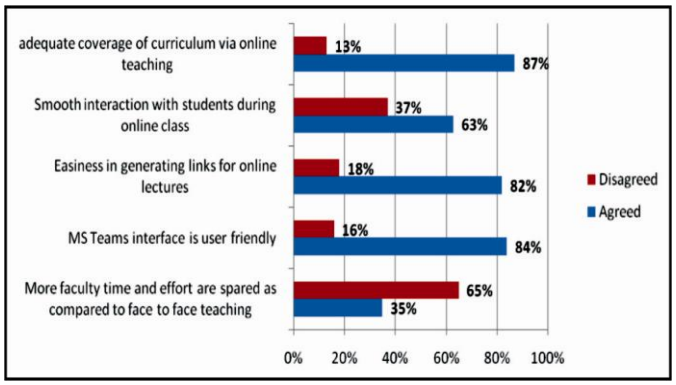

Fig. 2: Optimistic features of online teaching as perceived by faculty.

Majority (89%) of the faculty member were not gratified with attainment of clinical concepts through online teaching. Similarly, 78% teachers were not satisfied with online assessments of the students (Table 1). Microsoft Teams was favored by majority (72%) followed by preference for Zoom (18%) and Learning

Table 1: Attributes of e-learning dissatisfying the faculty members.

Attributes of e-learning	Disagreed	Agreed
Frequent connectivity problems during online teaching	62%	38%
Adequate addresser to clinical exposure	89%	11%
Satisfactory response from the students during online class	60%	40%
Justified assessment and fair judgment of competencies achieved by students	78%	22%

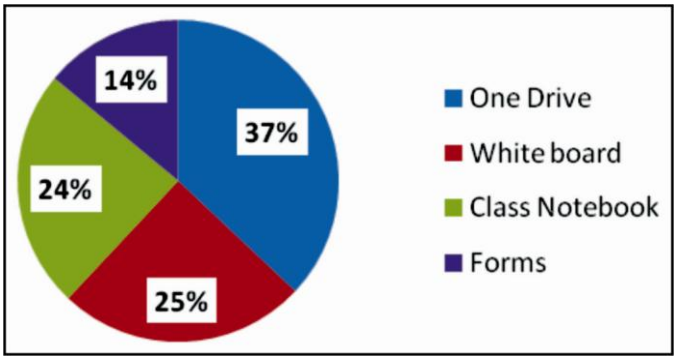

Fig. 3: Applications of MS Teams used by RMU facilitators.

Management System (10%). Total four online apps were employed by our facilitators for e-learning (Fig. 3). Most (76.4%) of our respondents opined to have designated online teaching rooms with availability of broadband internet while 23.6% faculty members emphasized the additional training of the teachers to capacitate them for online teaching.

DISCUSSION

Approximately 1.2 billion children are engaged in online learning activities due to closure of schools amid COVID pandemic. Digital platforms for academic continuity has drastically revolutionized the world. The optimistic aspect of this transformation is reported to be the retention of more information with less time consumption.[11] However, facets of e-learning across the world need to be investigated for its validation.

The present study revealed that 89% of our students were dissatisfied with acquaintance of clinical skills through online classes deemed necessary to become a

good doctor or pass through their exams. Likewise, the faculty of University College of Medicine and University College of dentistry was also discontented with acquisition of hands on competencies essential for performance of practical.[12] The students of RMU recommended having repetition of practical and clinical sessions for hands on practice that was unachievable via online learning. Use of online education platforms on closure of universities was not free from limitations, but this issue can intelligently be tackled to make e-learning a blessing in emergency situations to facilitate academics.[13]

Some of the tutors of Canadian institutes being non-familiar with e-learning had to grasp the skills of online teaching.[14] About 23.6% of teachers employed at RMU also stressed the need for faculty training to strengthen their capacity for e-learning. Some studies also recommended the need to train the teachers for online education irrespective of any epidemic or pandemic scenario.[15] Nonetheless, acquisition of e-learning competencies is imperative both for students and teachers for exultant accomplishment of teaching and learning activities.

Online education was an inevitable option to fulfill the requirement of social distancing in order to mitigate the transmission of coronavirus. Like most institutions worldwide, RMU also employed various apps like Google classrooms, Zoom and Microsoft Teams to ensure academic continuity.[16] Although versatile and user friendly MS Teams software was available to RMU faculty but 60% were unpleased with the response of the students during online class. This dissatisfaction might be due to less communication of the students with their teachers during online sessions.

Our teachers who were adapted to face-to-face teaching might have experienced online teaching quite cumbersome. A study by Rajab et al illustrated one of the significances of COVID pandemic in getting acquainted with mechanism of online sessions.[17] One of the remarkable benefits of e-learning emphasized in our Pakistani scenario was continuation of academics with tranquility and ease particularly during emergency situations when there is confinement to home for avoidance of unnecessary interaction with others to limit infectious diseases' transmission.[12]

The current study revealed higher satisfaction among 65% of our faculty members from online teaching regarding less time consumption and minimal energy dissipation in its delivery. The experience of e-learning modules at Dow University of Health Sciences during 2011-12 was reported to be quite gratifying not only among medical students but also to their faculty.[18] On the other hand, teachers of Nepal felt great difficulty in online teaching due to interrupted power supply and internet non-connectivity.[19] Main hurdle confronted by the students during online learning was uncontrolled learning environment at home.[20]

In current study, 87% teachers confessed that theoretical curriculum of medical students can sufficiently be covered via distant learning but concurrently about 78% of them disagreed with fairness in assessment of competencies and practical skills via online sessions. A study by Mukhtar et al advocated that hands on sessions are obligatory for acquisition of practical and clinical skills.[12] Despite some of the troubles linked to e-learning, it not only enables our students to comfortably access and listen to the lectures delivered by their teachers whenever required.[20] It inculcates the habit of self-directed learning among our students for their long term conceptual learning.[21]

As far as acquisition of psychomotor skills, use of online simulated patients and doing role plays could be the better options to achieve competencies of history taking, clinical examination, communicating with and counseling the patients by our medical students. Despite the resource constraints in Pakistan, our teachers were contented with the e-learning sessions done in response to COVID-19 pandemic. It is essential to make the online teaching more interactive for their authenticity. Faculty should be trained for utilizing versatile online assessment tools. However, hands on sessions are imperative to acquire standardized clinical competencies.

CONCLUSION

We found that 87% of our teachers confessed that theoretical curriculum of medical students can sufficiently be covered via distant learning but concurrently about 78% of them disagreed with fairness in assessment of competencies and practical skills via online sessions.

Author Contributions:
Conception and design: Rizwana Shahid.
Collection and assembly of data: Shazia Zeb, Sumaira Yasmeen.
Analysis and interpretation of data: Rizwana Shahid.
Drafting of the article: Rizwana Shahid, Muhammad Ali Khalid.
Critical revision of article for important intellectual content: Muhammad Umar.
Statistical expertise: Rizwana Shahid, Sumaira Yasmeen.
Final approval and guarantor of the article: Rai Muhammad Asghar.
Corresponding author email: Rizwana Shahid: drriz_shahid@yahoo.com
Conflict of Interest: None declared.
Rec. Date: Oct 2, 2020 Revision Rec. Date: Oct 1, 2021 Accept Date: November 1, 2021.

REFERENCES

1. Mailizar A, Abdulsalam M, Suci B. Secondary school mathematics teachers' views on e-learning implementation barriers during the COVID-19 pandemic: The case of Indonesia. Eurasia J Math Sci Technol Edu. 2020; 16: 1-9.
2. Toquero CM. Challenges and opportunities for higher education amid the COVID-19 pandemic: The Philippine context. Pedagogical Res. 2020: 5.
3. Adnan M, Anwar K. Online Learning amid the COVID-19 Pandemic: Students' Perspectives. Online Submission, 2020; 2: 45-51.
4. Kaur G. Digital Life: Boon or bane in teaching sector on COVID-19. Ann J Interdiscip Hist. 2020; 6: 416-27.
5. Ahmad I. Fata and the internet. Retrieved from The News: https://www.thenews.com.pk/print/639470-fata-and-the-internet.
6. Khan AA, Niazi S, Saif SK. Universities unprepared for switch to remote learning. https://www.universityworldnews.com/post.php?story=20200326141547229.
7. RMU kicks off online teaching. Available at: https://www.thenews.com.pk/print/645781-rmu-kicks-off-online-teaching.
8. Coping up with educational challenges during COVID-19 pandemic. Available at www.rmur.edu.pk.
9. Microsoft Teams Group Chat, Team Chat and Collaboration. Available at: https://www.microsoft.com/en/microsoft-365/microsoft-teams/group-chat-software.
10. Basilaia G, Kvavadze D. Transition to online education in schools during a SARS-CoV-2 coronavirus (Covid-19) pandemic in Georgia. Pedagogical Res. 2020; 5: 1-9.
11. World Economic Forum. The COVID-19 pandemic has changed education forever. This is how. Available at: https://www.weforum.org/agenda/2020/04/coronavirus-education-global-covid19-online-digital-learning/.
12. Mukhtar K, Javed K, Arooj M, Sethi A. Advantages, limitations and recommendations for online learning during COVID-19 pandemic era. Pak J Med Sci. 2020; 36: 27-31.
13. OECD Policy responses to Coronavirus (COVID-19). Education responses to COVID-19: Embracing digital learning and online collaboration. Available at: https://www.oecd.org/coronavirus/policy-responses/education-responses-to-covid-19-embracing-digital-learning-and-online-collaboration-d75eb0e8/.
14. Nuland SV, Mandzuk D, Petrick KT, Cooper T. COVID-19 and its effects on teacher education in Ontario: a complex adaptive systems perspective. J Educ Teach. 2020; 46: 442-451.
15. Oliver R, Herrington J. Teaching and learning online: A beginner's guide to e-learning and e-teaching in higher education. ECU Publications Pre 2011. Edith Cowan University.
16. Soni VD, Global impact of E-learning during COVID-19. Electronic J. 2020: 1-11.
17. Rajab MH, Gazal AM, Alkattan K. Challenges to online medical education during the COVID-19 pandemic. Cureus, 2020; 12: e8966.
18. Jawaid M, Ashraf J. Initial experience of eLearning research module in undergraduate medical curriculum of Dow University of Health Sciences: Development and students perceptions. Pak J Med Sci. 2012; 28: 591-96.
19. Subedi S, Nayaju S, Subedi S, Shah SK, Shah JM. Impact of E-learning during COVID-19 pandemic among nursing students and teachers of Nepal. Int J Sci Healthcare Res. 2020; 5: 68-76.
20. Barrot JS, Llenares II, Del Rosario LS. Students' online learning challenges during the pandemic and how they cope with them: The case of the Philippines. Educ Inf Technol. 2021. doi.org/10.1007/s10639-021-10589-x
21. Noh GO, Kim DH. Effectiveness of a self-directed learning program using blended coaching among nursing students in clinical practice: a quasi-experimental research design. BMC Med Edu. 2019; 19: 1-8.
22. Lucieer SM, Jonker L, Visscher C, Rikers RM, Lucieer SM. Self-regulated learning and academic performance in medical education Self-regulated learning and academic performance in medical education. Med Teach. 2016; 38: 585-93.