RESEARCH ARTICLE

Faculty willingness for continuing online teaching-post COVID-19 pandemic in Pakistan

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Abstract

Objective: To determine faculty willingness for continuing online education after coronavirus disease-2019 in Pakistan, and to correlate it with perceived gain in experience in online teaching during the pandemic.

Method: The cross-sectional study was conducted at Aziz Fatimah Medical and Dental College, Faisalabad, Pakistan, from January to July 2021, and comprised medical faculty with teaching experience of at least 2 years. Data was collected using an online questionnaire though Google Forms. Multiple regression analysis was done to determine faculty willingness with perceived experience levels in online education. Data was analysed using SPSS 25.

Results: Of the 100 subjects approached, 68(68%) responded; 51(75%) females and 17(25%) males. Of the total, 30(44.1%) participants were aged 33-40 years, 25(37%) were from Basic Sciences, 27(39.7%) from Clinical Sciences, 16(23.5%) from Allied Health Sciences, and 39(57.4%) had teaching experience <5 years.. Overall, 39(57.4%) participants were willing to continue online education post-pandemic, 20(29.4%) agreed partially and 9(13.2%) did not agree. A positive linear relationship was found between willingness to continue online education and increase in perceived experience level in teaching online (p=0.021).

Conclusion: There was a significant difference between perceived experience level in online teaching before and after the coronavirus disease-2019 pandemic. Those with increase in perceived experience level were willing to continue online education.

Keywords: Online education, Post-COVID-19, Faculty, Willingness. (JPMA 73: 1965; 2023)

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Introduction

The coronavirus disease-2019 (COVID-19) pandemic compelled the faculty to change the traditional classroom into virtual learning camps. Most of the teachers worldwide had to start from scratch to build up and learn skills related to online education.[1] This turned out to be positive in a way that now a new competency of having Information Technology (IT) skills was labelled as a compulsory skillset for teachers as well as students to acquire. Studies suggest that only in medical education, the number of studies on online education has been increased from 1218 to above 200,000 from June to December 2020 alone.[2] This massive surge in online education studies depicts the way the faculty adapted for delivering and continuing education to the students.

Most institutions of higher education took steps to upgrade their teaching staff's digital skills and mitigate any negative repercussions of this unplanned change on faculty's performance in terms of student learning and assessments.[3] Many institutions upgraded their already existing learning management systems to move towards advanced levels, while there were other medical schools that worked at the basic level.[4] Hence there were varying levels of skills obtained by the faculty to make the system work for the time being, hoping for things to get back to normal again.

With viruses changing their morphology day by day, it was unknown as to how long the transition would last or how long the virtual classrooms would last.[5] It is also a matter of discussion that even when the pandemic was over and the universities shifted to regular classes, would the teachers be willing to continue online education in some form or the other. Hence it becomes important to analyse the situation regarding faculty willingness to teach online even after the pandemic, and integrate online education into the curriculum. It has been accepted that COVID-19 opened doors for having a training of teachers and students for online education.[6] However, with basic awareness created among the stakeholders, it remains undetermined whether the faculty will be willing to

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continue selected components of online education with regular on-floor classes.[7]

The current study was planned to determine faculty willingness for continuing online education after COVID-19 in Pakistan, and to correlate it with perceived gain in experience in online teaching during the pandemic.

Patients and Methods

The cross-sectional study was conducted at Aziz Fatimah Medical and Dental College, Faisalabad, Pakistan, from January to July 2021. After approval from the institutional ethics review board, the sample was raised using purposive sampling technique. inviting all faculty members. Those included were faculty members of either gender with at least 2 years of online teaching experience at the institution. Those with less than 2 years of experience were excluded.

After taking informed consent from the subjects, data was collected using an online survey questionnaire that was shared via Google Forms (https://forms.gle/QzkxgTk7UrXrWN969). The questionnaire was developed after an intensive review process and pilot testing on 10 participants.

Data was analysed using SPSS 25. Numerical data was expressed as mean and standard deviation, whereas categorical data was represented as frequencies and percentages. Mean values of perceived experience levels for teaching online before and after COVID-19 were comared using t-test. Multiple linear regression was applied, with level of significance taken to be $p<0.05$.

Results

Of the 100 subjects approached, 68(68%) responded; 51(75%) females and 17(25%) males. Of the total, 30(44.1%) participants were aged 33-40 years, 25(37%) were from Basic Sciences, 27(39.7%) from Clinical Sciences, 16(23.5%) from Allied Health Sciences, and 39(57.4%) had teaching experience <5 years (Table 1).

Table-1: Characteristics of study participants (n=68).

Variable	Category	n (%)
Age (years) groups	24-32	11 (16.2)
	33-40	30 (44.1)
	41-48	20 (29.4)
	49-56	5 (7.4)
	57-65	2 (2.9)
Gender	Male	17 (25.0)
	Female	51 (75.0)
Teaching interest/ teaching subject	Basic Sciences	25 (36.8)
	Clinical sciences	27 (39.7)
	Allied health sciences	16 (23.5)
Teaching experience	< 5 years	39 (57.4)
	6-10 Years	14 (20.6)
	10-15 years	12 (17.6)
	More than 15 Years	3 (4.4)

Faculty readiness for continuing online studies was explored through 20 questions (Table 2).

The change in preceived expertise level of online teaching before and during COVID-19 was significant ($p<0.0001$) (Table 3).

Overall, 39(57.4%) participants were willing to continue online education post-pandemic, 20(29.4%) agreed partially and 9(13.2%) did not agree (Table 4).

A positive linear relationship was found between willingness to continue online education and increase in perceived experience level in teaching online ($p=0.021$) (Figure).

Table-2: Characteristics of study participants (n=68).

Question	Mean±SD	Rank
Adjust my course assignments and requirements to accommodate students' potential inequitable access to online learning necessities (e.g. internet access; device access; a safe place to learn, etc.).	4.09±0.41	1
Level of creativity for utilizing new methods of teaching	3.99±0.51	2
The implication of new techniques before mastering personally	3.97±0.43	3
Willingness to implement novel teaching	3.91±0.54	4
Strategies to help manage any fears and concerns	3.90±0.60	5
Acknowledge any fears and concerns in a safe professional environment when I teach outside of my regular mode of delivery	3.87±0.57	6
Important to use instructional time to foster and nurture relationships with students in online classes.	3.87±0.73	7
Prepared to attend to students in an online setting who are having difficult times in their lives.	3.79±0.66	8
Creating opportunities to increase student autonomy regarding when and how they learn (e.g. student self-pacing of learning and selection of learning material).	3.76±0.46	9
Level of comfort while teaching outside of my regular mode of delivery	3.72±0.62	10
Creating opportunities to increase student autonomy regarding what they choose to learn from a selection of topics chosen by me (e.g. choice boards).	3.72±0.56	11
Level of interest in learning from experts in online teaching	3.71±0.52	12
willing to lessen the amount of traditional teacher-directed instruction	3.53±0.52	13
Tendency to return in regular mode of teaching	3.44±0.44	14
Online teaching will compromise the teaching persona and presence that I usually maintain during in-person instruction.	3.43±0.57	15
Challenges to senses being a teacher	3.31±0.62	16
prepared to identify students' potential inequitable access to online learning necessities	3.26±0.90	17
Comfortable with students relying LESS on direct instruction from me to learn class learning objectives.	3.22±0.68	18
Online teaching makes me feel like a novice teacher educator again rather than an experienced professional	3.13±0.88	19
Instituton established a comfortable way of teaching online	2.69±1.05	20

SD: Standard deviation.

Table-3: Perceived experience levels for online teaching before and during COVID-19 pandemic.

Perceived Experience Levels for Online Teaching	Mean±S.D.
Before COVID-19 Pandemic	2.03±1.23
After/Ongoing COVID-19 Pandemic	3.90±1.08
Difference in perceived experience level in online teaching	2.04±1.24
p-value	0.0001

COVID-19: Coronavirus disease-2019.

Table-4: Correlation between willingness to continue online education post-COVID-19 and an increase in perceived experience (n=68).

Willingness to continue online education Post COVID-19	Increase in perceived experience level in teaching online	
	n (%)	Mean ±SD
Disagree	9 (13.2)	1.44±1.13
Partially agree	20 (29.4)	1.75±3.00
Agree	39 (57.4)	2.33±1.00

SD: Standard deviation; COVID-19: Coronavirus disease-2019.

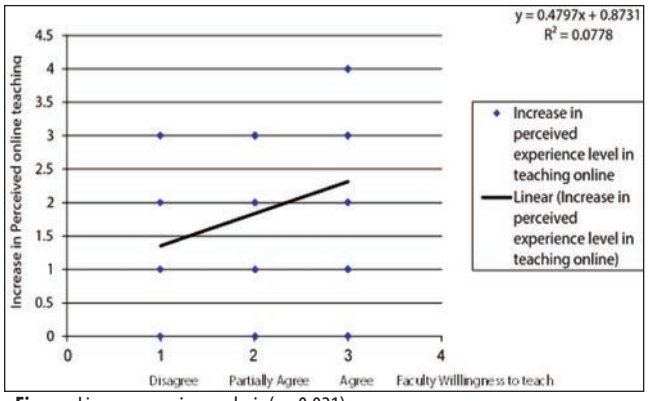

Figure: Linear regression analysis (*p*=0.021).

Discussion

Currently, there are 177 universities and other higher educational institutions in Pakistan. Out of them, 58% belong to the public sector, whereas the remaining 42% come under the private sector.[8] All these institutions are bound to follow the rules of the Higher Education Commission (HEC),which on March 31, 2020, advised all universities to start online classes in the wake of the spread of COVID-19.[9]

The current study indicated that majority of the participants were willing to continue online education post-COVID-19 which is in line with other studies.[10,11] A study reported that the involvement and readiness of young teachers was more associated with a positive e-learning readiness.[12] However, others suggested that faculty had to adjust course assignments and requirements to accommodate students' potential inequitable access to online learning necessities, like internet access, device access, a safe place to learn, etc., and there were some technical issues as well, like online class access, audio and video speed, and class material downloading.[7,13] A study in India identified various challeenges posed by online education on the current medical curriculum.[14] Previous studies revealed that online learning platforms bring benefits for students only when they were used as complementary tools for the traditional educational process.[15] According to another study, there was a significant need to improve online teaching, course designing and advanced computer skills.[16]

In the current study, a high mean score of 3.90 was recorded in favour of perceived levels of teaching. Another study reported an overall high mean score (3.1879) for the oppurtunities in online teaching during the pandemic in Afghanistan.[17] The current findings supported the studies in which respondents recorded a positive response and believed that these oppurtunitites had helped them in creating an innovative approach towards problem-solving.[18]

Managing different e-learning tools in the education process during the pandemic became a difficult task for medical students. Electronic tools are used with different teaching strategies for increasing students' collaboration in learning process so that the importance of education will never be low.[19]

The current study has limitations as it was done at a single private-sector centre with limited data. Large-scale, multi-centre studies are recommended.

Conclusion

The difference in perceived experience level in online teaching was significant among the teachers compared to the perceived experience level before the pandemic. Majority of the participants were willing to continue online education post-COVID-19.

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