

Online Teaching During COVID-19: Prevalence of Occupational Stress among the University Faculty in Pakistan

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The delivery of classes through an online medium has been a recent modification brought out by the education system in Pakistan in the midst of the current pandemic situation. The purpose of this study was to conduct an online survey regarding the prevalence of occupational stress among the University Faculty in online teaching in Pakistan during the outbreak of COVID-19. Thus, this survey describes university teachers' perceptions and concerns with regard to taking online classes that have been made mandatory due to the spread of coronavirus. The sample consisted of 183 teachers (120 female and 63 male participants) from both public and private sector universities in Punjab, Pakistan. An online survey method was used for the purpose of data collection. The findings show that the non-availability of technical support, work-family conflict, work overload, and lack of training for online teaching are the major causes of occupational stress among university teachers of Pakistan in online teaching during COVID-19. University administrators and management can benefit from the findings of this study in taking future emergency decisions concerning the implementation of online learning programs.

Keywords: *COVID-19, occupational stress, online teaching, university faculty*

Introduction

COVID-19 pandemic has, among many other things, tested the resilience of higher education institutions, but profoundly reshaped the management of learning, education, and skill development, leading to a rethinking of perspectives and approaches within the educational enterprise as a whole.

Due to lockdown, the educational institutes underwent suspension of traditional educational activities leading to interruption in the functioning of the educational process in terms of internal assessments for qualification. The whole process was replaced by an alternative mode of learning, often thought to be inferior and ineffective. Almost all universities around the world have adopted the delivery of education online at different paces, ranging from the off-line, drop-and-go model to highly intensive, well-structured, and fully online programs. Yet in higher education, certain obstacles are still getting in the way of e-learning. These are essentially linked to connectivity issues,

a lack of infrastructure, and data costs at African universities, whereas financial costs, legislation, the digital gap, and the cultural leap for teachers are the most serious challenges are in Asian countries which include India and China. In Europe, students' self-motivation and self-organization skills in fully online educational settings are the main barriers. And there is a common misperception that it would be less demanding to teach or take classes online than face-to-face courses. At North American and Australian universities, keeping up with the technology and having the faculty to adapt to the cultural change are seen as the key difficulties. The challenges in Latin America are achieving a higher level of involvement among students and ensuring the quality of the course. (Amemado, 2020).

The outbreak of COVID-19 has greatly affected the educational sector. There is a strong possibility of deteriorating mental health because of the resulting sense of uncertainty and anxiety among students

and faculty members (Sahu, 2020). Technology-based strategies are being adopted by teachers and educational institutions to provide education.

Along with addressing educational challenges, it was pertinent to address the psycho-social challenges of students, teachers and parents during the quarantine. Before rolling out the digital tool, students, teachers, and parents must be trained about its usage (UNESCO, 2020).

Also important is the investment of universities in the well-being of its students and faculty and staff members. Counseling and psychological services are also remotely available for students as well (Bensaid & Brahim, 2020). For example, Effat University, in Jeddah, KSA (Effat University, 2020) created a Library Contingency Plan on the COVID-19 crisis, stress management, emotional health, and preventing stress, relaxation, and meditation strategies, as well as free access to scholarly materials. Khalifa University in the UAE provided remote mental health services and online development courses on leadership, managing stress, and positive thinking (Bensaid & Brahim, 2020).

Filius et al. (2019) claim that it needs considerable preparation and expenditure from all sectors to go fully online. So if the university has not previously taken students and teachers through online teaching training and does not have adequate resources to get the teacher to record and present the work in a way that can be viewed by students, including recording platforms both on campus and at home, then the online strategy ends right here (Yang & Li, 2018).

While technology makes things accessible and easier, it can also be limiting, especially in Pakistan, where many students face challenges in terms of access to the internet. This, in turn, leads to issues with attendance and participation in online sessions. Meanwhile, a face-to-face classroom setting can provide immediate feedback to faculty members and students about the quality of lessons, delivery, and

experience. In a classroom-setup, a teacher can observe students' body language and these non-verbal cues help the teacher to immediately make adjustments in their teaching approach to best suit the needs of the students. Additional questioning and individualized attention in the classroom environment to gain a more detailed idea about the student's clarity with concepts being taught is a major advantage when compared to online channels. When it comes to the educational setup in Pakistan, online classes are a newly introduced mode of teaching and not something that has been a part of regular classes.

Correspondingly, earlier research noted that faculty have negative impressions concerning online learning authority over technology use (Haidar, 2014) and that most faculty have negative views of online learning (Willett, Brown, & Danzy-Bussell, 2019). Also, a significant number of teachers in Macedonia did not agree to replace the traditional teaching methods with e-learning (Xhaferi, Farizi, & Bahiti, 2018). Faculty perceived barriers of online education reported in another study also included interpersonal, institutional, training and technology, and cost/benefit analysis barriers (Lloyd, Byrne, & McCoy, 2012). The finding of this research suggests that problems and challenges associated with online education must be addressed.

Previous research has also shown that teachers who teach online have a more favourable view of online education than those who do not. (Lee, March and Peters, 2015; National Communication Association, 2019). Additionally, prior studies have identified many encouraging and discouraging factors that may affect faculty motivation to teach online (Shreaves, 2019). Understanding the views of faculty toward online education is necessary so that their concerns may be properly addressed. The voices of faculty are needed in the acceptance of new educational technology, and that will eventually contribute to the success of learning systems in academic institutions

(Farhan, Razmak, Demers, & Laflamme, 2019).

A study that compared the online and face-to-face sections of the same course showed that there was no significant difference in the test scores, assignments, participation grades, and final grades of both groups (Neuhauser, 2002). However, the average online groups were slightly higher. The online course was found either as effective as or more effective than face-to-face courses by 96% of the online students. Several other studies also proved the insignificant differences between learning outcomes achieved through online courses and face-to-face instruction (Goyal & Krishnamurthy, 2018). However, the haste of universities to finish up their online academic year in response to the COVID-19 pandemic could result in unprecedented challenges for faculty, students, and families. This is because the way universities are currently implementing their online programs and courses may create highly uneven and unsatisfying educational learning experiences that can threaten the credibility of distance education as a viable and substantial educational platform (Bensaid & Brahim, 2020).

Teacher's perspective is equally important because they as providers of education are not satisfied and find the online mode unsatisfactory. Then the educational base itself becomes weaker. This new introduction of online classes has been equally challenging for teachers, who are also struggling to learn this new way or methodology of teaching. Therefore, the significance of this research lies in exploring the teachers' occupational stress toward online classes in comparison to face-to-face classes. The survey focused on teachers from both public and private sector universities in Punjab. Thus, the following article describes the results of the survey which was made to understand how well this alternative pedagogy is being taken by teachers, what are the general problems faced by them while taking online classes

to help educational instructors and facilitators and university management to understand the modifications that can be brought to make online teaching more effective so that in future it can be integrated along with classroom teaching. The responses from this survey will help to improve the online mode of classes to provide a better learning experience to students and a better teaching experience to the teachers. University administrators and management can benefit from the findings of this study in taking future emergency decisions concerning the implementation of online learning programs.

Research Questions

1. What factors contributed to raising occupational stress among university faculty while taking online classes during COVID-19?
2. To what extent demographic variables of gender, teaching discipline, and academic qualification influence the prevalence of occupational stress among the university faculty while taking online classes during COVID-19?
3. What are the main obstacles to practicing online teaching in Pakistan?

Methodology

For this study, the author formed a survey for university teachers. The survey questions assessed the occupational stress of university teachers about online classes during COVID-19. The teacher survey had a cross-section of 8 demographic questions and 32 questions regarding teacher's perception about taking online classes. Response choices consisted of pre-defined options of strongly agree, agree, disagree, strongly disagree and neutral. The instruments were refined after expert validation. Pilot testing was done to check the reliability of instruments. The Cronbach alpha was found at 0.86.

Due to the current COVID-19 situation, the survey was conducted online using google forms. Teachers from multiple universities

who were conducting online classes were approached and asked to complete the survey. A total of 183 teachers (120 female and 63 male participants) participated in the survey.

The details of the demographic characteristics of the selected sample are presented in

Table 1:

Table 1: Description of Demographic Variables

Variables			
	Group	F	%
Gender of the Teachers	Male	63	34.4%
	Female	120	65.6%
Sector	Government	130	68.1%
	Private	53	27.7%
Academic Qualification	MPhil	141	73.8%
	PhD	25	13.1%
Professional Qualification	BEd	57	29.8%
	MEd	30	15.7%
	Others	33	17.3%
Age (In years)	20-30	72	37.7%
	31-40	78	40.8%
	41-50	25	13.1%
	51-60	1	.5%

	61-70	4	2.1%
Scale	18	137	71.7%
	19	21	11.7%
	20	2	1.0%
	21	3	1.6%
Teaching Disciplines	Social Sciences	57	29.8
	Management	22	11.5
	Art & Humanities	83	43.5
	Science	21	11.0
Teaching Experience	1-5	118	61.8
	6-10	44	23.0
	11-15	2	7.3
	16-20	4	1.0

Table 1 The data was analyzed to see the prevalence of occupational stress among the University Faculty in Pakistan in online Teaching during COVID-19. The mean scores were calculated, and an independent sample t-test and ANOVA was employed to

Table: 2

Rank order of occupational stress factors during online teaching in COVID-19

see the difference between the prevalence of occupational stress among university teachers on the basis of the gender and disciplines of the faculty staff.

	Mean	SD
Rank		

	27- My family ignores because of this online teaching	3.53	1.257	1
	28- Online teaching makes me short-tempered at home	3.33	1.233	2
	25-I find it difficult to spend quality time with my family during this online teaching	3.51	1.292	3
	26- Online teaching prevents me to do the day to day household chores	3.51	1.222	4
<hr/>				
	Total	3.47/13.8		
<hr/>				
Work- family conflict	1- I have to do a lot of work in my job during online teaching.	4.08	1.114	1
	10- I have to manage with an insufficient number of resources during online teaching.	3.77	1.946	2
	9- I do my work under tense circumstances.	3.64	1.240	3
	23- Online teaching has multiplied my difficulties as a teacher.	3.56	1.165	4
	24- My personal life is being disturbed during this online teaching	3.54	1.244	5
	18- I have to dispose of my work hurriedly owing to excessive workload during online teaching.	3.39	1.089	6
	19- I often feel that this job has made my life cumbersome during this time	3.31	1.193	7

22- I am unable to carry out my assignment to my satisfaction on account of the excessive load of work and lack of time	3.26	1.203	8
17- My assignments are quite complicated during online teaching.	3.06	1.125	9
4- The responsibility for the efficiency of many employees is thrust upon me during this time through online teaching	3.00	1.167	10
7- My assignments are monotonous during online teaching	2.94	1.144	11
Total	3.41/37.5		

Lack of training for online teaching

31- I feel a need to upgrade my technology skills for online teaching	3.69	1.077	1
30- Due to lack of training for online teaching I have to do more work than I can handle	3.53	1.235	2
29- I find myself inadequately trained to use new technologies during online teaching	3.24	1.274	3
32- I find others know more to use technology than me during online teaching	3.17	1.195	4
Total	3.40/13.63		

Intrinsic Impoverishment	14- I get ample opportunity to utilize my abilities and experience independently during online teaching	3.30	1.191	1
	15-I am seldom rewarded for my hard labor during this time.	3.22	1.124	2
	16- I am seldom rewarded for my efficient performance during this time	3.10	1.151	3
	Total	3.24/9.72		
	21- I have to do such work as ought to be done by others during this time.	3.44	1.08	1
	11- The objectives of my work-role are quiet clear and adequately planned during this time	3.43	1.16	2
	2- The available information relating to my job-role and its outcomes are vague during online teaching.	3.28	1.103	3
	3- My heads often give contradictory instructions regarding my role during online teaching	2.97	1.258	4
	20- It is not clear what type of work and behavior my higher authorities and colleagues expect from me during this time.	2.95	1.128	5
	Total	3.21/16.07		
Under participati	8- Higher authorities do care for my self-respect during this time.	3.42	1.164	1

12- Officials do not challenge my academic autonomy during online teaching.	3.27	1.105	2
13- My suggestions regarding the training programs of employees are given due attention during this time(e.g. online learning, digital literacy, e-learning)	3.10	1.022	3
5-Most of my suggestions are heeded here during this time.	3.07	1.048	4
6- Most of my suggestions are implemented here during this time	3.02	1.092	5
Total	3.17/15.88		

Table 2 From the table, it can be seen that the most preferred factor of the prevalence of occupational stress among university faculty is work-family conflict (m=3.47) and under participation / Powerlessness (m= 3.17) was the least rated factor by the University teachers. It demonstrates that faculty faces problems to prioritize between family and work during online teaching.

The work overload was a second-rated factor by University teachers. Eleven items were representing the work overload in the scale and the mean rating of this factor was 3.41. As it is shown in Table, the item “ I have to do a lot of work in my job during online teaching” received the highest mean rating of 4.08 and the least emphasized item was “My assignments are monotonous during online teaching” (m=2.94). It indicates that the university faculty feels more occupied and over-burdened during online teaching whereas they find more opportunities to prepare a variety of activities for students.

The lack of training for online teaching was at the third rank order preferred by

University teachers. The mean rating of this factor was 3.40. The item “I feel a need to upgrade my technology skills for online teaching” (m=3.69) received the highest mean rating. The least emphasized item was “I find others know more to use technology than me during online teaching” (m= 3.17). It shows that the university faculty emphasizes the need for training for online teaching and they also feel that a few faculty members are more trained and well-equipped due to their expertise and skills to deal with online teaching.

Intrinsic impoverishment was at the fourth rank order in the scale and the mean rating of this factor was 3.24. The item “I get ample opportunity to utilize my abilities and experience independently during online teaching” (m=3.30) received the highest mean ratings. The least emphasized item was “I am seldom rewarded for my efficient performance during this time” (m= 3.10). It demonstrates that the faculty enjoys academic autonomy; however, they are not rewarded for their performance due to the limitation of the technology.

Five items were representing the Role Ambiguity & Role conflict in the scale and the mean rating of this factor was 3.21. The item “I have to do such work as ought to be done by others during this time” (m= 3.44) received the highest mean ratings. The least emphasized item was “It is not clear what type of work and behavior my higher authorities and colleagues expect from me during this time” (m= 2.95). It demonstrates that the role of faculty in different activities is ambiguous that contributes to occupational stress. Moreover, it also emphasizes that the authorities and colleagues expect more work from them during online teaching.

In conclusion, as can be seen from the following graph, the factors of the prevalence of occupational stress among the University teachers in their teaching process in online teaching during COVID-19 were work-family conflict, work overload, lack of training for online teaching, intrinsic impoverishment, role

ambiguity & role conflict, and under participation/ powerlessness in order. It shows that the work-family conflict, work overload, and lack of training are the most important factors causing occupational stress among university faculty during online teaching during the outbreak of COVID-19.

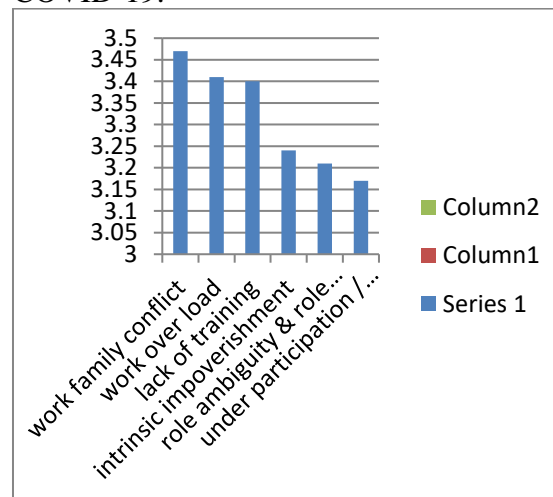


Table: 3

Comparison of the Prevalence of occupational stress among the university faculty based on the gender of the teachers

Factors	Gender	N	Mean	SD	t-test for Equality of Means		
					df	t	Sig.
Role Overload	Female	120	3.3697	.77567	181	1.074	.823
	Male	63	3.4978	.74945			
Role ambiguity & role conflict	Female	120	3.1617	.65813	181	1.465	.862
	Male	63	3.3111	.65133			
Lack of training	Female	120	3.3604	.99145	181	.885	.845
	Male	63	3.4960	.97084			

Under participation/ Powerlessness	Female	120	3.1617	.68956	181	.342	.222
	Male	63	3.2000	.77709			
Work family conflict	Female	120	3.4639	1.12546	181	.234	.956
	Male	63	3.4233	1.09774			
Intrinsic impoverishment	Female	120	3.1611	.80612	181	1.066	.917
	Male	63	3.2963	.83196			

Table 3 To investigate the interaction of gender and the prevalence of occupational stress among the university faculty based on the gender of the teachers, an independent sample t-test was applied and results revealed that there is no significant mean score difference between the prevalence of occupational stress among the university faculty based on the gender concerning work overload (t=1.074, p=.823), Role ambiguity & role conflict (t=1.465, p=.862), Lack of training (t=.885, p=.845), Powerlessness (t=.342, p=.222),

Work family conflict (t=.234, p=.956), Intrinsic impoverishment (t=1.066, p=.917). The mean score of male faculty members were higher than females in the stress factors i.e. work overload (Mean=3.49), role ambiguity & role conflict (Mean=3.31), lack of training (Mean=3.49), under participation/powerlessness (Mean=3.20), intrinsic impoverishment (Mean=3.29), whereas the mean score of females in work-family conflict (Mean=3.46) was higher than males (Mean=3.42).

Table: 4

Comparison of the Prevalence of occupational stress among the university faculty based on the teaching disciplines of the teachers

Factors	Disciplines	SS	Df	MS	F	Sig.
	Between	.806	3	.269	.617	.605
	Groups					
Role ambiguity & role conflict	Within	77.962	179	.436		
	Groups					
	Total	78.769	182			

Intrinsic impoverishment	Between	3.919	3	1.306	1.997	.116
	Groups					
	Within Groups	117.079	179	.654		
	Total	120.998	182			
Work family conflict	Between	.378	3	.126	.100	.960
	Groups					
	Within Groups	225.135	179	1.258		
	Total	225.513	182			
Under participation/ powerlessness	Between	1.437	3	.479	.926	.430
	Groups					
	Within Groups	92.647	179	.518		
	Total	94.084	182			
Lack of training	Between	1.089	3	.363	.371	.774
	Groups					
	Within Groups	175.081	179	.978		
	Total	176.171	182			
Work overload	Between	.228	3	.076	.127	.944
	Groups					
	Within Groups	106.873	179	.597		
	Total	107.101	182			

Table 4 The result of the ANOVA table shows that there is no significant difference between the mean score of teachers about the Role ambiguity & role conflict (F=.617, p=.605), Intrinsic impoverishment (F=1.997, p= .116), Work-family conflict (

F=.100, p= .960), Under participation/powerlessness (F=.926, p= .430), Lack of training (F=.371, p= .774), and Work overload (F=.127, p= .944) based on their teaching disciplines.

Table: 5

Comparison of the Prevalence of occupational stress among the university faculty based on the academic qualification of the teachers

Factors	Academic Qualification	N	Mean	SD	t-test for Equality of Means		
					$(\alpha = 0.05)$		
					df	t	Sig.
Role ambiguity & role conflict	MPhil	141	3.2213	.65365	164	-.455	.228
	PhD	25	3.2882	.78968			
Intrinsic impoverishment	MPhil	141	3.1844	.83896	164	-.897	.286
	PhD	25	3.3467	.80208			
Work-family conflict	MPhil	141	3.4421	1.10590	164	-.101	.416
	PhD	25	3.4667	1.23977			
Under participation/ Powerlessness	MPhil	141	3.2638	.69542	164	3.069	.605
	PhD	25	2.7920	.77991			
Lack of training	MPhil	141	3.3954	1.00141	164	-.812	.415
	PhD	25	3.5700	.92848			
Work overload	MPhil	141	3.4139	.74026	164	.104	.016
	PhD	25	3.3964	.96918			

Table 5 To investigate the interaction of academic qualification and the prevalence of occupational stress among the university faculty, an independent sample t-test was applied and results revealed that there is no

significant mean score difference between the prevalence of occupational stress among the university faculty based on the academic qualification concerning role ambiguity & role conflict (t= -.455,

$p=.228$), Lack of training ($t=-.812$, $p=.415$), Powerlessness ($t=3.069$, $p=.605$), Work-family conflict ($t=-.101$, $p=.416$), Intrinsic impoverishment ($t=-.897$, $p=.286$). But there is a significant mean score difference between the prevalence of occupational stress among the university faculty based on the academic qualification concerning work overload ($t=.104$, $p=.016$). The mean score of faculty members having MPhil (Mean= 3.4139) were higher than Ph.D. faculty members (Mean=3.3964).

Discussion and Conclusion

Online classes were reported to be convenient in terms of saving time. However, work overload, lack of training, and work-family conflict are the most important factors for effective and smooth learning. If these factors are not considered important, they may cause occupational stress among university faculty during online teaching. To make online teaching more effective, and convenient technical support and training are instrumental. Yang and Cornelius (2004) also support similar findings. They found technical issues to be the most influential factor when it came to satisfaction with online classes. The results found here will thus allow university administrators to determine how technical support can be expanded and extended to reach all teachers, thereby, improving their experience and making the classes more effective. Another study states that the problem regarding faculty indifference and resistance to technology integration is fairly common (Arinto, 2016). Similarly, a review study noted that faculty expressed concerns about student success in online classes and expressed their need for technical support (Wingo, Ivankova, & Moss, 2017).

The findings of the present study suggest that there is a significant mean score difference between the prevalence of occupational stress among the university faculty based on the academic qualification concerning work overload. It also demonstrated that the mean score of faculty members holding an MPhil degree was

higher than Ph.D. degree holders in terms of work overload. It demonstrates that faculty with Ph.D. degrees are well equipped, skilled, and more resourceful than MPhil degree holders. The findings also suggest that faculty members irrespective of their academic qualifications are of the view that they need technical support and training to undertake online teaching effectively. The findings of the present study contradict another study conducted in the Kingdom of Saudi Arabia where individuals had a Bachelors degree and had less teaching experience had a stronger e-learning perception (Alenezi, 2012) and among Teacher Education faculty in the Philippines wherein younger faculty had higher competence in ICT (Pardo, 2012). The present study demonstrates that senior faculty with higher qualifications have more experience and exposure to online pedagogy. Though, they might have reservations toward online education. They seemingly favor online education during the outbreak of the COVID-19 pandemic as they may be aware that they are more at risk to develop severe illness. Working in the virtual environment without needing constant face-to-face interaction limits their chances of being exposed to the disease. Moreover, it was noticed in the present study that there is no significant mean score difference between the prevalence of occupational stress among the university faculty based on the academic qualification concerning role ambiguity & role conflict, Lack of training, Powerlessness, Work-family conflict, and Intrinsic impoverishment. It demonstrates that the academic qualification of faculty members has no relation to the said factors. And the factors of role ambiguity & role conflict, Lack of training, Powerlessness, Work-family conflict, and Intrinsic impoverishment cause occupational stress among university faculty irrespective of their age, gender, experience, and academic qualifications. The findings also demonstrate that work-family conflict caused more occupational stress among

female university faculty as compared to male faculty. It also implies that work from home is more challenging for Female university faculty. Similar findings have been supported by the previous studies that the negative consequences of work–family conflict for women and their families have been well established (Allen et al., 2000; Aryee et al., 2005; Amstad et al., 2011). Individuals with high levels of work–family conflict report more depressive and stress symptoms (Zhang et al., 2017).

Based on the results it can be concluded that there is a high level of prevalence of occupational stress among the university faculty members during online teaching. This study calls for appropriate interventions taken by the competent authorities to reduce stress among university teachers and to resolve causes of occupational stress among teachers. These interventions should include the provision of technical facilities, training for online teaching, and the upgrading the technical skills of teachers.

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