ZOOM FATIGUE IN PAKISTANI UNIVERSITY TEACHERS

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ABSTRACT

Zoom fatigue is defined as the tiredness, worries, or exhaustion that is caused by over use of computer-generated ways of communication. The present investigation focused on exploration of phenomenon of zoom fatigue in University Teachers. Qualitative research design followed by thematic analysis technique was core paradigm of the study. Data collection was carried out from Universities of Faisalabad, Sargodha and Lahore districts of Punjab province of Pakistan. The purposive sample comprising of participants (N=20) participant who taught at university level with only zoom platform were included. A semi-structured interview based questionnaire was used to collect the data. In thematic analysis, 07 themes and 23 sub-themes were emerged. Themes appeared in the study include zoom utilization challenges, physical health issues, psychological concerns, connectivity fret, home life opinion and social life disturbances and on-campus classe preferences. In Pakistan, zoom has been seen as less effective mode of learning particularly for poor signal coverage area inhabitants. However, this study has brought attention to certain recognised aspects, such as internet and health and mental health-related issues.

Keywords: Zoom Fatigue, University, Teachers, Qualitative Research, Online Education, Thematic Analysis

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INTRODUCTION

The term 'zoom fatigue' gained popularity during COVID-19 pandemic and is defined as the tiredness, worries, or exhaustion that is caused by over use of computer-generated ways of communication (Bennett et al., 2021). Zoom fatigue is extensively widespread, intense, and absolutely new just like some other practices linked with the COVID-19 pandemic (Lee, 2020). During COVID-19, the teaching system in Pakistan is influenced critically as classes were switched to online mode of learning. There online platforms are being used for remote education such as zoom, skype and google meet etc. However, zoom platform is the most widely used than others and its usage has increased to 300 million from just 10 million populations (Wiederhold, 2020). Virtual education has effected people at social, physical, emotional, and psychological level. Due to the fact that it was a new experience for everyone and that the majority of learning activities previously took place on campus, university instructors who employed the online teaching technique displayed concerns and sudden challenges (Akour et al., 2020).

The ongoing coronavirus contagion has interrupted face-to-face education in learning institutions throughout the whole world. Mentors struggled to find completely alternative courses as a result of an urgent virtual learning turn, often with little notice (Gares et al., 2020). Evidence from studies shows that students from low educational backgrounds struggle the most with remote learning approaches. Thus, compared to students who are in regular classroom learning environments, higher socioeconomic breaks in outcomes are created. The main problems are identified as communication barriers between students and teachers (Baum & McPherson. 2019).

Embracing new technology infrequently comes without a little bumps and the existing situation is no exception. Apart from technical faults and network stress to handle augmented circulation, people are about to recognize a fresh phenomenon now that is tiredness, worry or anxiety, resulting due to excess of virtual meeting platforms usage. That is something investigators and journalists have begun to call ''Zoom fatigue'' (Wiederhold, 2020). Some researchers have suggested that the micro interruptions in audio, the increased emphasis on lower-resolution and participant's poorly illumined portrait pictures contribute to fatigue. Almost undoubtedly, there is diversity of similar factors that are contributing to the fatigue (Scroeder, 2021).

Various other reasons have been reported by the researchers but among such reasons, the unnatural amount of eye contact with others, seeing self in cameras constantly, lack of physical movement, and non-verbal cues were among the main causes of Zoom fatigue. Though switching off the camera for some time and moving during virtual meetings could help the teachers in combating their zoom fatigue to some extent as physical activities have been reportedly associated with reduction of fatigue risk to about 40 percent. Lack of physical mobility during zoom meetings affected the physical health of teachers as it resulted in back pain and eye strain (Sklar, 2020).

Zoom fatigue is also seen to cause much exhaustion among the teachers that they had to put the efforts into attending any Zoom call due to the overuse of virtual meetings via the zoom platform. It had become a constant source of stress for teachers as such meetings made their communication more difficult than in-person interaction (MacDonald, 2021). The reported symptoms of Zoom fatigue encompassed difficulty in concentration, muscle tension, frustration, and fatigue. The reasons behind such frustration and burnout have been those stressful focused video calls that had to be taken by the teachers during pandemics besides in-person interactions. The strain on an individual mind increases while reading non-verbal cues, for supposing for giving feedback to the professor regarding the lecture the student had to work harder for receiving those signals (MacDonald, 2021).

Another disturbing factor was the interference from home as it was quite difficult to maintain a learning environment at home. Everyone around has been busy in their own tasks i.e. job and households etc. so the noise in the background especially in small houses created various disturbances during the online classes. Sometimes the situations got embarrassing for the students when they have to present any topic and their siblings or any other family member started shouting in their background. Such conditions added up the frustration and exhaustion among the students (White, 2020). Moreover, it was exceedingly challenging to understand synchrony during video conferencing when nonverbal cues were coupled with speech and movement. Some of the major drawbacks that have been reported in Zoom meetings were the unstable internet connections, lack of interaction among students, distracted attention, and lack of attention span (Fosslien & Duffy, 2020).

The place where they were used to finding a comfort zone and the environment that was once seemed very comfortable to them became hectic for the teachers due to the indulgence of the phenomena of providing education from home. Now, they had no choice as their educational environment and resting environment

got mixed horribly which made them frustrated and exhausted (Fosslien & Duffy, 2020). Some students tried to hide themselves by switching off their cameras during Zoom meetings but it made them more self-conscious as they had to reassure again and again that their camera is switched off or not. Furthermore, the students were supposed to attend their Zoom meetings with the same mindset that they had in their in-person classrooms (MacDonald, 2021).

To encapsulate, the review of literature suggest social, physical, and psychological difficulties experienced by academicians due to Zoom Fatigue. It is evident from the web search on Google scholar and PubMed that Pakistan has not specifically undertaken any research on this phenomena. Hence, this study is an endeavor to explore the phenomenon of zoom fatigue in University Teachers in Pakistani cultural conxtext.

METHOD

Participants

The present study was qualitative in nature. The purposive sampling technique was used to collect the data. Clarke and Braun (2013) suggested a minimum size of 12 for a qualitative study. Hence, the sample comprised of university teachers (*N*=20) who used zoom application as their main source of conducting online classes. The sample was recruited based on given below inclusion and exclusion criteria from various Universities of Faisalabad, Sargodha, Gujrat and Lahore cities in Punjab province of Pakistan.

Inclusion Criteria and Exclusion Criteria

- Participants who used Zoom as their primary teaching tool were included in the study

- Participants who were Associate Professors and Lecturers in a university and who had exclusively taught via the Zoom platform were inlcuded

- Participants who used alternative platforms for online education, such as Google Meet or Skype, but did not use the Zoom platform were exluded.

- Participants who have experience with zoom teaching but were not Associate Professors or Lecturee at a university were excluded.

Measures

Researcher herself acted as research instrument as it is a common practice of qualitative research. For the investigation and data collection, a semi-structured interview based questionnaire was designed for estimation of the online learning challenges during the pandemic crisis.

Procedure

First of all, researcher obtained the authority letter for data collection from the Institute of Applied Psychology, Government College University Faisalabad. This authority letter did authenticate the researcher's identity. This study was proposed to be carried out by using a qualitative approach in order to analyze and acquire better results of instructors' experiences with the zoom platform. A sample of 20 teachers of both genders was taken. After getting participant's willingness to participate, they were informed about the nature of investigation. Confidentiality of the information was ensured to participants. All the Participants were interviewed using semi structured interview one by one. Responses were recorded for ease of the researcher. Later, the responses were written down and the data was analyzed by using qualitative data analysis technique i.e. thematic analysis and results were reported accordingly. Each participant was thanked cordially for their cooperation.

Data Analysis

Thematic analysis technique was used to analyze qualitative data of respondents. Thematic analysis was carried out in five stages recommended by Castleberry and Nolen (2018) in a qualitative data analysis methodology: Compiling, deconstructing, reassembling, analyzing, and concluding. Participants data was transcribed and then was coded by using the software named QDA miner lite. Then sub-themes were generated by using the coded information. Further. sub-themes were merged to create themes so that results could be finalized.

RESULTS

Thematic analysis generated seven themes on zoom fatigue as: Zoom Utilization Challenges, Physical Health, Psychological Concerns, Connectivity Fret, Social Interactions, Home life Opinions, On-campus class preferences. Each theme further include sub-themes under it (Table 1).

Table 1
Themes and Sub-Themes of Zoom Fatigue in Univesity Teachers

No.	Themes	Sub-Themes
1.	Zoom Utilization Challenges	Zoom Adaptation Struggles
		Zoom Meeting Bugs and Impersonation Issues
		Unproductive Learning Mode
		Restricted Meeting Time Problem
		Zoom Fatigue over Time
		Zoom as user Friendly Software
2.	Physical Health	Somatic Health Complaints
		Weight Concerns
3.	Psychological Concerns	Aggression linked with Multiple Causes
		Stress Levels to Compound causes
		Zoom Meetings create Anxiety and Frustration
		Anger linked with student's non-serious Learning Attitudes
		On Camera Appearance Concerns
		Worry about result's Validity Threats
4.	Connectivity Fret	Internet issues and Audio Perturbations
		Low Attendance & Participation of Students
		Poor Signal Coverage Area Inhabitant's Concerns
		Netiquettes Violation by Students

Table 1
Continued

No.	Themes	Sub-Themes
5.	Social Interactions	Socializing Snags
		No Significant Interactions related issues
6.	Home Life Opioons	Background Interruptions
		Inappropriate Background Settings
		Personal Space Disruptions
7.	On-Capmus Class Preferences	Backshift to zoom is Undesired
		Something is Better than Nothing

1. Zoom Utilization Challenges

Zoom utilization challenges is the first theme of this qualitative study which has six subthemes including zoom adaptation struggles, zoom meeting bugs and impersonation issues, unproductive learning mode, restricted meeting time problem, zoom fatigue over time, zoom as user friendly software.

Table 2
Sub-Themes under the Main Theme 'Zoom Utilization Challenges'

Zoom Adaptation Struggles
It was clear by participant's responses that they have experienced learning mode adaptation difficulties. As one of them stated that: *"Zoom was difficult to operate for majority of instructors except from technical department teachers as they have been known with application based databases. Instructors other than technical departments faced hurdles with operating zoom software. Zoom platform was also unfamiliar for students which creates difficulties in online classes management primarily."* (Participant 09, Discourse Unit (DU) 14).
Zoom Meeting Bugs and Impersonation Issues
Participants complaints about zoom bugs and impersonation problem. They stated both these issues respectively as follows: *"Zoom features were unmanageable initially. There were random bugs during zoom meetings but they upgrade application according to that time requirements gradually."* (Participant 09, DU 14). *"A person in the class was complaining about boredom during lecture but soon I realized that he is not a student from my session. He was the cousin of my student. My colleague also experienced this sort of issue at the same time that an unknown person in the class started abuse during lecture.*" (Participant 11, DU 17).
Unproductive Learning Mode
It is apparent from this study finding that online classes via zoom is not a good choice for quality education. Participants explained the ways how it is an ineffective mode of learning. One of the reason stated was: *A teacher and student cannot consult properly during online classes. You have to skip information sometimes. A teacher can observe from students face that they are not getting points properly but they pretend like they understand each and everything.* (Participant 10, DU 104).

Table 2
Continued

Restricted Meeting Time Problem
University teachers complained about unavailability of full version of zoom which is purchasable. It is a time consuming process as reported by one of them. *"If you have to take 1-hour class or 2 hours' lab, students take 15 minutes to join firstly. Then after 40 minutes meeting ends, students again take time in joining back. In this way 1-hour class take almost 2 hours to complete and similar for labs. You can imagine how much a teacher suffer in this way."* (Participant 17, DU 54).
Zoom Fatigue over Time
Some participants reported that zoom issues were not the same as earlier. Because when people start using a platform, they become habitual with the process over time. Due to familiarity with zoom features, things didn't bother the same way as before. As some of them stated that. *"Teachers and students became familiar over time. As they used to understand zoom features with the passage of time*." (Participant 10, DU 70; Participant 17, DU 55). However, some of the participants reported that they didn't observe any improvement in online teaching issues with zoom. As one of them reported that "*Physical interaction is more important to polish student's skills. Online is totally an artificial environment in which improvement is quite difficult.*" (Participant 14, DU 56).
Zoom as user Friendly Software
Along with zoom problems they face, two of the participants reported that zoom application was easy to use as compared to other applications of teaching online during pandemic as they stated that *"Zoom is a user friendly software and easy to use. My children also used zoom for attending online classes, it was quite easy for them to use it."* (Participant 6, DU 08; Participant 16, DU 08). Although it seems easy to some participants, issues faced by teachers with online zoom teaching were remained the same.

2. Physical Health

In-debth analysis of results showed that the theme "physical health" has two subthemes in it which includes somatic health complaints and weight gain.

Table 3
Sub-Themes under the Main Theme 'Physcal Health"

Somatic Health Complaints
Due to remote learning system, majority of participants suffered from certain bodily health related problems such as headache, back pain, neck to shoulder pain, eyes related problems, blood pressure problems, stomach issues etc. As one of them stated that: *"You can see that back pad. I used it to manage back pain issue caused by sitting for long period of time. It was helpful and we should commonly use that before as well."* (Participant 02, DU 48).
Weight Concerns
Few Participants described about how their weight increased due to online system of education during COVID-19 outbreak. *"My physical health effected as my body mass index was disturbed. My weight doesn't shoot like this commonly even I have to eat extra to maintain my normal weight previously. But in this one year and four months I gain 10kgs almost. It was not a good sign to gain fats. That was the problem."* (Participant 09, DU 31).

3. Psychological Concerns

Psychological Concerns is the third theme of this qualitative study which has six subthemes including aggression linked with multiple causes, stress levels to compound causes, zoom meetings create anxiety and frustration, anger linked with student's non-serious learning attitudes, on camera appearance concerns, worry about result's validity threats.

Table 4
Sub-Themes under the Main Theme 'Psychological Concerns"

Aggression linked with Multiple Causes
Participants stated that they felt aggression during zoom classes. Some of them reported that student's non serious attitudes and lack of participation caused aggression in them. Others reported students' personal messages caused them to be aggressive sometimes. A participant describe aggression during online classes as follows: *"When I am delivering lectures and no one is participating during class, it feels like you are talking in front of a mirror. And sometimes students pretend like a vendor in the street with fake voices just to tease the instructor. These things lead toward aggression."* (Participant 19, DU 48).
Stress Levels to Compound causes
Multiple participant complaints about psychological distress during zoom meetings. They described the number of reasons causing stress as load shedding stress, diminished social circle stress, network issues stress, hectic work routine stress, fixed schedule stress, unethical attitudes and misbehaviors stress, stressed exam procedure and disturbed sleep also caused stress. One Participants reported that stress as follows: *"Sometimes power cut in the area happens which generate stress. When you are unable to take class timely due to power off and later, you have to manage that class by setting up extra classes that creates stress."* (Participant 07, DU 16).

Table 4
Continued

Zoom Meetings create Anxiety and Frustration
Participants feel anxiety and frustration during zoom classes which they described with situational scenarios: According to one as: *"A person feels frustration when she realized that I have well prepared my lecture but students didn't pick that effectively."* (Participant 03, DU 55).
Anger linked with student's non-serious Learning Attitudes
Students were non serious for learning during online zoom classes. As a participant described as: *"I provided guidelines to students that whenever you faced trouble in contacting via WhatsApp or email during exams, feel free to contact on phone directly so that we can entertain you as soon as possible. But at the time of exam they showed same non serious attitude which caused anger that you are behaving the same way instead of adopting other channel."* (Participant 18, DU 31).
On Camera Appearance Concerns
Two of the Participants specified that there was some sort of religious apprehensions with video conferencing. Only some students turned on their cameras while others attend only audio classes. As a participant explained as: *"If we talk about videoconferencing, there were some issues with female who used to wear veil in usual routine. Students were used to with audio classes that they respond like ma'am who will get fresh and come to ready now. I had to irritate when they refused to turn on their cameras."* (Participant 01, DU 73).
Worry about result's Validity Threats
Participants feel unsatisfied due to unfair means of attempting exams during online classes. They were unable to invigilate properly during online as they can do during physical exam. According to a participant as below: *"Apparently, they were attempting exams fairly but later they put statuses in which it can be seen clearly that they were sitting in groups in the same room with changed backgrounds and attempting exams by cheating."* (Participant 10, DU 34).

4. Connectivity Fret

Fourth theme of this investigation is connectivity fret which has four sub-themes including internet issues and audio perturbations, low attendance & participation of students, inhabitant's poor signal coverage concerns, and etiquettes violation by students.

Table 5
Sub-Themes under the Main Theme 'Connectivity Fret"

Internet issues and Audio Perturbations
Majority of participants faced audio related difficulties. Audio issues due to internet were on extreme for some of them which leads towards frustration and aggression to them. As according to one participant: *"I think 50% were audio issues during zoom classes. Students have joined the class but we are not sure whether they are listening to us or just joined the class and indulged in their activities somewhere. Because sometimes we inquire during class and after long they respond like teacher was not audible to them. It caused frustration."* (Participant 05, DU 22).
Low Attendance & Participation of Students
During zoom meetings, participation of students was quite low. Along with these participation issues, there were also problems with attendance maintenance even students used to do proxy during online classes. As a participant stated as: *"One main violation is attendance violation. According to an instructor, present is the one who is getting online. Such kind of attendance violation was common that they are online but not present in back scenario even present online with mobiles."* (Participant 06, DU 46).

Table 5
Continued

Inhabitant's Poor Signal Coverage Concerns
An important scenario was that students were bound to maintain attendance according to university rules and regulation but they were unable to do that due to their backward areas where signal coverage is so poor. As a participant stated one of the student's issue among them as follow: *"Students from northern areas faced difficulty in attending lectures and during exams. Students reported that they have to go outside of the village to attend their lectures and for exams."* (Participant 10, DU 58).
Etiquettes Violation by Students
Students didn't bother about morals and values they only focused for their comfort zone. They did not follow internet etiquettes not even after teacher's instruction. As a participant stated as: *"A student sitting in undershirt in front of camera and excused like there is no electricity in the town and fan is off. He didn't wear proper shirt due to hot weather. They don't follow how much a teacher provide guidance on ethics and moral value."* (Participant 08, DU 38).

5. Social Interactions

Social interaction was fifth theme of the study on zoom fatigue which is further covering two sub-themes as socializing snags and no significant interactions related issues.

Table 6
Sub-Themes under the Main Theme 'Social Interaction"

Socializing Snags
Social life of some participants were disturbed badly. It is characterized by participant's responses that diminished social circle or decline in social activities were more related to pandemic crises than with zoom usage alone. As one of the participant stated as: "*It would be difficult to differentiate because you are teaching on zoom during lockdown and meaning you are already restricted socially. You don't have to meet with others during COVID-19.*" (Participant 18, DU 27).
No Significant Interactions related Issues
Some participants didn't observe any specific disturbance in their social life during online system of education. However, it represented that participants who claimed about improvements in their social life were talking about social media engagements. *"I think my social life became strong during this phase because I used to check WhatsApp more frequently that if someone is calling or messaging me. In this way, I feel more social than before."* (Participant 03, DU 65).

6. Home life Opinions

Home life opinions is the sixth theme of this research which includes three sub-themes under it like background interruptions, inappropriate background settings, personal space disruptions.

Table 7
Sub-Themes under the Main Theme 'Home Life Opinion"

Background Interruptions
A peaceful background environment is mandatory for effective teaching. Participant complaints about background noise during online classes. A participant told the researcher about background noise as: "When a student's mic turned on, you will hear different interrupting sounds such as water pump noise, if someone's siblings are fighting in the background or if some vendor is passing by the street randomly." (Participant 20, DU 30).
Inappropriate Background Settings
A proper studious environment plays a vital role in effective learning that was not achieved during zoom classes. As a participant stated that: *"Students intentionally represent an environment such that on roof or on public places so that they can divert teacher's attention. A student started to attend class in a place where a brush cutter machine was running in the background. On teacher's inquiry, he told that it is his village's environment and he don't have any studio or backroom where he can attend class."* (Participant 08, DU 38).
Personal Space Disruptions
Teachers were irritated during zoom classes. They need peace and space in their personal lives which was deteriorated due to this online system of teaching. *"The contact number was restricted to GR, CR before online classes. They used to communicate each and every matter for their classes. After shifting online, every student had your number and used to send direct messages in inbox for their issues instead of group messages."* (Participant 19, DU 36).

7. On-campus class preferences

Last theme of this qualitative investigation is on-campus class preferences which has two subthemes as backshift to zoom is undesired, something is better than nothing.

Table 8
Sub-Themes under the Main Theme 'On-campus Class Preferences"

Backshift to zoom is Undesired
It was understood by participant's thoughts that they were not in the favor of zoom class in future without proper training and getting solutions for issues faced by teachers and students both. One of participant clarify their opinions of shifting back to zoom by saying that: *"I think it would be the failure of the whole education system. We didn't learn anything even after some worst experiences. We didn't provide our own proper system. We didn't facilitate students with any gadgets and internet and failed to train them appropriately."* (Participant 08, DU 78).
Something is Better than Nothing
It was found out by participant's responses that zoom classes were mandatory to deal with outbreak. This approach was conditionally acceptable in future i.e. to learn something instead of being free if any similar undesirable situation happens ever.   *"It was a good approach that process of education or learning remains continued during pandemic. Alternatively, there were the possibility that 40% of students had left education. They might have lost their interest in learning. Online learning reminds them of their purpose at least that they are students and they have to learn."* (Participant 08, DU 49).

DISCUSSION

Findings of this present study revealed some 'zoom utilization challenges' that were faced by teachers during online phase of teaching. This theme was supported by literature as previously a research was conducted for the exploration of experiences of the instructors that had to shift from an in-person teaching style to an online teaching system during the COVID-19 pandemic. As COVID-19 pandemic resulted in various experiences, challenges, complaints, and preferences. The findings of the research explained that for some instructors the Zoom appeared as a professional life savior while for others it proved to be an exhausting and frustrating thing as it caused Zoom fatigue among the students that affected the quality of education (Cotich, 2021).

Findings of the investigation reveale that teachers faced zoom fatigue particularly in the sections of 'physical' and 'psychological health'. Among physical health related issues are eyestrain, muscular pain, and hypertension whereas weight concerns complaints were also found in physical health issues. This theme was supported by the literature as the results of the study explained the various causes of zoom fatigue. The unnatural amount of eye contact with others, seeing self in cameras constantly, lack of physical movement, and non-verbal cues were among the main causes of fatigue. Lack of physical mobility during zoom meetings affected the physical health of teachers as it resulting in back pain and eye strain (Sklar, 2020).

Among psychological concerns aggression, stress, anger, worrisome, anxiety, frustration etc. were associated with multiple causes during online classes. It is also supported by literature previously. As the findings of the research revealed that the students who have been taking virtual classes in the COVID-19 pandemic through virtual platforms such as Zoom reported various mental health issues i.e. depression, exhaustion, anxiety, fatigue, and sleep issues (Burleigh, 2021).

All of the participants reported about connectivity related issues that they have experienced during online classes through zoom application. Connectivity issues effected random participants differentially. It was stressful for some and caused anxiety among others. This theme is also supported by the literature as researcher found out challenges of e-Learning during the crises state of affairs i.e. COVID-19 Pandemic that is experienced by EFL Learners. The main issue reported by 48% participants was internet speed. The learners who didn't encounter any problem during that period were 18% only. Online access and the downloading

material score is about 14%. There were 13% who reported issues in conducting exams online. As some of the students could not access the online examination due to internet connectivity issue. There was 8% score of those who didn't attend lab sessions (Mhyoob, 2020).

Findings also revealed that social life was restricted as it was the period of COVID-19 so people avoided meeting each other. However, some participant expressed improvement in their social media interactions. Personal life disruptions were also suffered by majority of teachers in Pakistan as students used to texts and calls at any time of the day that was irritating of majority of teachers. A research was conducted to check the influence of electronic media usage on the academic and social lives of university teachers during the COVID-19 pandemic. The results of the time-diary suggested that the majority of the teachers used electronic media for multitasking (Chardalias, 2020).

Background settings were inappropriate, reported by teachers as there were number of distortions and disturbing factors while teaching from their homes. Sometimes background environment is inappropriate to attend the class that was not studious at all. All of the participants were in the favour of physical lectures. There was no single participant in the study who recommended online classes in future. Because physical classes involve face to face interaction with students that is mandatory for their grooming. It was understood by participant's thoughts that they were not in the favor of zoom class in future without proper training and getting solutions for issues faced by teachers and students both. They think this online system of education was responsible for ineffective learning for students. A research was conducted to examine the students' perspective on the transition of learning from in-person to virtual. The findings showed that the students experienced five phases during their transition from in-person to remote learning (i.e. grief, loss, fatigue, coping, and resilience) (Lengetti et al., 2021).

To put in a nut shell, the core aims of the study i.e. to explore zoom fatigue in Pakistani university teachers were achieved as it provides valuable information regarding the phenomenon under investigation. Some already known phenomenon were also found out during the period such as technology adaptation struggles, physical and mental health related issues, social and personal life disturbances, internet problems, on camera appearance concerns etc. that are caused by virtual mode of learning. Teachers were not eager for zoom classes if any similar situation happens again in future.

This present study explored the phenomenon of zoom fatigue in Pakistani university teachers. This study has some implications that would be helpful for teachers and students both in future if any similar condition would occur. Teachers must be provided proper training sessions before shifting to online mode of learning. Poor signal coverage areas must be entertaining with proper internet facility. Teachers have to be provided with full version of zoom so that interruptions during lectures can be reduced. Screen-time for teachers have to be reduced in order to avoid various physical and psychological issues.

While undertaking this investigation, the researcher come across some limitations. Firstly, the sample size was low and most of the participants were taken from selective universities instead of collecting data from different universities in different cities of Pakistan. As a result, there is a threat to external validity of this research as it can't be generalized to whole population in Pakistan. Another limitation of this study was that the researcher investigated about zoom platform only during crises situation. There were also some other platforms such as Google Meet, MS Team etc. used by number of university teachers. Teachers who use alternative possibilities may see similar effects to those experienced by teachers who use the Zoom platform.

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