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The Emotional Costs of Digital Teaching: Exploring Psychological Distress, Fatigue, and Job Satisfaction Among School Teachers during Pandemic Era

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This study investigates psychological distress, fatigue, and job satisfaction among school teachers (n = 90) in Lahore, Pakistan, who transitioned to remote instruction during the COVID-19 pandemic. Conducted using a correlational research design, the study aims to examine how psychological well-being and fatigue relate to job satisfaction within virtual teaching environments. Data was collected between 2020 and 2021 during a period of enforced remote education. Participants completed a demographic form along with three standardized instruments: The Kessler Psychological Distress Scale (Kessler & Mroczek, 1992), the Checklist Individual Strength (Vercoulen et al., 1999), and the Online Faculty Satisfaction Survey (Bolliger & Wasilik, 2009). The findings revealed significant relationships among psychological distress, fatigue, and various dimensions of job satisfaction. In particular, increased distress and fatigue were associated with reduced satisfaction in instructor- and student-related domains. These patterns illustrate the psychological and occupational strain encountered by educators in response to the sudden transition to online instruction. The study contributes to the growing discourse on teacher well-being during crisis-driven educational transitions. It highlights the urgent need for institutional interventions such as mental health support services and structured digital training programs to improve faculty resilience and satisfaction in online learning settings.

Keywords. Psychological distress, fatigue, job satisfaction, school teachers, COVID-19

The COVID-19 pandemic, which emerged in late 2019, brought about an unprecedented global health crisis that disrupted nearly every aspect of daily life. Among the most deeply affected sectors was education, which experienced a sudden and forced transition from

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traditional face-to-face instruction to online and distance learning models. According to UNESCO (2020), educational disruptions affected approximately 1.58 billion learners in 188 countries, as schools and universities across the globe were closed to curb the spread of the virus. Pakistan, like many low- and middle-income countries, struggled to adapt to this new mode of delivery due to existing infrastructural challenges and limited preparedness.

Teachers found themselves at the forefront of this digital transformation. With little time for preparation or training, teachers were expected to restructure their pedagogical strategies, manage virtual classrooms, deliver engaging lessons via unfamiliar technologies, and support students' academic and emotional needs remotely. This included managing online platforms like Zoom or Google Classroom, developing digital resources, and responding to the diverse learning needs of students, all while grappling with personal anxieties related to the pandemic. Burgess (2015) noted that such a drastic shift in teaching dynamics has significant implications for teacher motivation and morale. Beyond the technological hurdles, teachers faced increased workloads and extended screen time, which often blurred the boundaries between professional and personal life. In Pakistan, these challenges were further compounded by limited access to reliable internet, insufficient institutional support, and the lack of formal training in digital teaching methods. Teachers not only had to adapt their instructional strategies, but also manage students' engagement, learning outcomes, and behavior in virtual spaces, tasks that often required more emotional labor than in traditional classroom settings. This dual pressure of adapting to a new instructional paradigm while managing the broader uncertainties of a global health crisis contributed to heightened levels of stress and fatigue among educators.

Existing literature has documented the emotional burden faced by teachers during emergency transitions. Greenglass and Burke (2003) found that occupational stress in service professions, particularly teaching, is a major predictor of burnout and reduced job satisfaction. Klapproth et al. (2020) further observed that teachers during COVID-19 reported elevated levels of stress and emotional exhaustion due to a lack of institutional support and unclear expectations. Similarly, Liu and Ramsey (2008) emphasized that job satisfaction in teachers is closely tied to perceived control, recognition, and work-life balance — factors heavily disrupted by the pandemic. Fatigue, both physical and mental, has also been explored in relation to remote teaching. Vercoulen et al. (1999) argue that persistent fatigue in professionals is not merely a byproduct of workload but is closely linked to psychological strain and low recovery time. In the context of COVID-

19, teachers were often expected to work extended hours without sufficient rest or digital tools, further intensifying their distress.

Despite these contributions, there remains a gap in the literature specific to Pakistan, where the sociocultural, technological, and institutional challenges faced by teachers during remote instruction are unique. While some studies have focused on student learning and technological access (Kozma et al., 1998), few have investigated the interconnected effects of psychological distress, fatigue, and job satisfaction among teachers in local school systems.

Research has shown that prolonged exposure to work-related stress, particularly in crisis-driven conditions, can have serious implications for teachers' mental health, leading to psychological distress, burnout, and reduced job satisfaction (Greenglass & Burke, 2003). During the COVID-19 pandemic, many educators reported feelings of helplessness, anxiety, emotional exhaustion, and a lack of professional fulfillment. Factors such as financial insecurity, health concerns for family members, and uncertainty about the future only intensified these psychological burdens. It has been observed that the lack of access to appropriate digital tools and training not only hindered teaching performance but also exacerbated the emotional toll on teachers.

Understanding the psychological distress, fatigue, and job satisfaction of teachers during emergency remote teaching is essential not only for addressing current gaps in literature but also for informing future education policy and practice. Teachers are central to the functioning of any education system, and their mental well-being has direct implications for student engagement, instructional quality, and overall academic success. Jungmann and Witthöft (2020) argues that the effectiveness of education systems in times of crisis is closely tied to the support mechanisms provided to teachers, including mental health services, digital training, and clear communication of institutional expectations.

Given this background, the present study seeks to investigate the levels of psychological distress, fatigue, and job satisfaction among school teachers in Lahore, Pakistan, who engaged in remote instruction during the COVID-19 pandemic. By examining the relationships among these variables, the study aims to shed light on the psychological costs of emergency distance teaching and to offer evidence-based insights that can guide institutional strategies for supporting teachers' well-being in future educational disruptions.

Objectives

1. To identify the relationship between psychological distress, fatigue and job satisfaction among school teachers working online during COVID-19.
2. To identify the relationship between working hours and level of fatigue among school teachers working remotely during COVID-19.

Method

A quantitative research design was used for this study to quantify the level of psychological distress, fatigue, and job satisfaction among secondary school teachers and to examine the relationship between psychological distress, fatigue, and job satisfaction.

Sample

A total of 90 female teachers currently teaching 9th and 10th grade students (matriculation level) in private schools were selected for this study using the purposive sampling technique. The participants were actively engaged in online teaching during the COVID-19 pandemic. The sample was drawn from five private secondary schools in Lahore: Fairfield High School, Kips School, Dar-e-Arqam, The American Lyceum, and Unique High School. The inclusion criteria required participants to have at least one year of teaching experience and to be currently involved in delivering remote instruction. The purposive sampling approach was chosen to ensure that the selected participants had direct and recent exposure to online teaching during the pandemic period.

Measures

As it is quantitative research, standardized tools were utilized to collect information from the subjects for the research. Following informed consent, each participant was presented with a self-administered questionnaire consisting of four sections.

Demographic Information Sheet

Demographic information sheet formed section one of the self-administered questionnaire. It contains basic demographic details like

the age of the participant, their gender, religion, marital status, level of education, teaching experience, and hours spent working from home.

Kessler Psychological Distress Scale (K10)

The second section of the questionnaire used the Kessler Psychological Distress Scale (K10), originally developed by Kessler and Mroczek (1992). It is a basic self-reported scale, commonly used as an indicator of psychological distress. The K10 scale includes ten items on emotional distress, each with a 5-point Likert scale. The scale may be used as a short screen to detect levels of distress. Every item is graded from one *'None of the Time'* to five *'All of the Time*.' The scores of the 10 items are then summed up, producing a minimum total of ten and can reach a maximum possible total of fifty. Low scores signify low levels of emotional distress, and high scores demonstrate high levels of psychological distress. Previous psychometric studies have demonstrated high internal consistency for the K10; a recent reliability–generalization meta-analysis across 48 studies reported a mean Cronbach's α = .90 (95% CI 0.88–0.91) (Wojujutari & Idemudia, 2024).

Checklist Individual Strength (CIS)

The third section of the self-administered questionnaire is a 20-item fatigue questionnaire developed by Beurskens et al. (2000). It is used to determine fatigue in the general population, which is a reliable and valid indicator of fatigue. It consists of 20 items that use a 7-point Likert scale to assess four different one-dimensional subscales, namely fatigue (8 items), motivation (4 items), concentration (5 items), and activity (3 items). The CIS-20R has demonstrated excellent psychometric properties across various populations. In the original validation study among working adults, the internal consistency of the subscales ranged from Cronbach's α = .84 to .95, and test–retest reliability was r = .74 to .86 (Beurskens et al., 2000). Overall, the CIS-20R is recognized as a reliable and valid instrument for assessing fatigue, concentration, motivation, and activity levels in diverse populations (Beurskens et al., 2017).

Online Faculty Satisfaction Survey (OFSS)

The final component of the self-administered questionnaire was the Online Faculty Satisfaction Survey (OFSS) generated by Bolliger and Wasilik (2009). This tool is being used to assess the perceived

satisfaction of instructors in the framework of the virtual learning environment. The OFSS questions covered concerns that have a direct effect on educating in the virtual environment. The OFSS consists of a total number of 36 questions, including 28 questions with a 4-point Likert scale ranging from 1 *Strongly Disagree* to 4 *Strongly Agree*. The questions are designed on the findings of the literature review, which includes studies on obstacles and barriers to online faculty teaching and the satisfaction of instructors. Questions are established for each of the three subscales: Student-Related Issues, Instructor-Related Issues, and Institutional Issues. Also, four open-ended and four demographic questions are designed for inclusion in the questionnaire. The overall scale contains 28 items and has been shown to have good internal consistency, with a reported Cronbach's α of .85 (Bolliger & Wasilik, 2009).

Procedure

A pilot study was conducted prior to the main study to ensure the clarity and feasibility of the research instruments. Permission to conduct the pilot was obtained from the coordinator of Unique High School, and ethical approval was secured from the relevant institutional review board. The pilot aimed to identify any necessary modifications to the questionnaire, assess the time required for completion, and evaluate the response rate. Three teachers participated in the pilot study, completing the self-administered questionnaire that included a demographic sheet, the Kessler Psychological Distress Scale (K10), the Checklist Individual Strength (CIS-20R), and the Online Faculty Satisfaction Survey (OFSS). The questionnaire was distributed via Google Forms, and feedback from the participants was collected and incorporated into the final version of the questionnaire for the main study.

For the main study, data were collected from secondary school teachers working from home during the pandemic, across different schools in Lahore. Formal permission was obtained from the authorities of all participating institutions, and informed consent was secured from each participant. Detailed instructions regarding the purpose of the study and the procedure for completing the questionnaire were provided. Permission to use the scales was obtained from the respective authors. Participants completed the questionnaire in the following order: demographic sheet, K10, CIS-20R, and OFSS. This procedure ensured standardization in data collection while maintaining ethical compliance and confidentiality of participant responses.

Results

Data was collected using standardized assessment tools. The data was analyzed using IBM SPPS version 22. Various parametric statistics were generated to infer the data. Descriptive statistics were used to calculate the Cronbach's alpha value of the measures. The demographic characteristics of the sample were also analyzed. Inferential statistics were conducted to test the hypotheses through Pearson correlation, and Linear Regression. The descriptive statistics and reliability analysis for the measures used in the research are reported in Table 1.

Table 1: *Reliability Analysis of Study Variables (N = 90)*

					Range	
Scales	*k*	*M*	*SD*	*α*	Actual	Potential
KPD	10	.36.55	6.48	.72	20-48	10-50
CIS	20	76.43	13.73	.62	40-97	20-140
OFSS	32	77.11	9.46	.71	33-90	32-160
S-RI	15	36.18	6.16	.70	15-48	15-75
I-RI	7	15.63	2.72	.47	7-23	7-35
II	3	9.30	2.30	.46	4-16	4-20

Note. *k* = Number of Items; *M* = Mean; SD = Standard Deviation; *a* = Cronbach's alpha level; KPD = Kesler Psychological Distress; CIS = Checklist Individual Strength' OFSS = Online Faculty Satisfaction Scale; SRI = Student Related Issues; I-RI = Instructor Related Issues; II = Instruction Issues.

It can be noted that the alpha coefficients for scales fall between the range of .72 and .46. The ranges of scores are also reported in the Table. The actual range on Kessler Psychological Distress was 20 - 48 (*M* = 36.55, *SD* = -6.48) and potential range of the scale was 10 - 50. The actual range on Checklist Individual Strength was 40 - 97 (*M* = 76.43, *SD* = -13.73) and potential range of the scale was 20 - 140. Similarly, the actual range on Online Faculty Satisfaction Survey (*M* = 77.11, *SD* = 9.46) was 33 - 90 with a potential range of 21 - 160.

A Pearson correlation was computed among various variables to find out if there is a significant relationship between them. The correlation matrix included various demographic variables and sums of all scales and subscales. The correlation matrix was used to test the hypothesis as well. The results are summarized in Table 2.

Table 2: *Analysis of Correlation Among Age, Education Level, Experience of Teaching, Working Hours, Psychological Distress, Checklist Individual Strength, Online Faculty Satisfaction Survey, Student-Related Issues, Instructor Related Issues, Institution Issues (N = 90)*

Variables		*M*	*SD*	1	2	3	4	5	6	7	8	9	10
1	Age	29.60	0.57	-	.18	.18	-.14	.08	.15	.01	-.00	-.06	.64
2	EL	-	-		-	.01	.21*	-.04	-.16	.07	.04	.10	-.03
3	EOT	-	-			-	.045	-.01	.05	.18	.12	.06	.22*
4	WH	-	-				-	-.20	-.20	.24*	.28**	.22*	.04
5	KPD	36.55	6.48					-	.21*	.28**	.38**	-.44**	-.00
6	CIS	76.43	13.73						-	.07	.03	.11	.29**
7	OFSS	77.11	9.46							-	.91**	.71**	.44**
8	SRI	36.10	6.20								-	.58**	.25*
9	IRI	15.80	2.90									-	.15
10	II	9.30	2.30										-

Note. EL = Educational Level; EOT = Experience of Teaching; WH = Working Hours; KPD = Kesler Psychological Distress; CIS = Checklist Individual Strength' OFSS = Online Faculty Satisfaction Scale; SRI = Student Related Issues; I-RI = Instructor Related Issues; II = Instruction Issues.

*$p < .05$; **$p < .01$.

It was hypothesized in H1 that there is a significant positive correlation between psychological distress and fatigue. The hypothesis was approved as results yielded a significant positive correlation between the variables ($r = .21$, $p < .05$). A negative significant correlation was found between psychological distress and subscale of online faculty satisfaction survey; student-related issues ($r = -.38$, $p < .05$), and instructor-related issues ($r = -.44$, $p < .05$).

H2 proposed that there is a significant negative correlation between psychological distress and job satisfaction. The hypothesis was approved as results yielded a significant negative correlation between the variables ($r = -.28$, $p < .01$). Moreover, a significant positive correlation ($r = .22$, $p < .05$) was found between education level and working hours of teaching per day. Additional findings were also retrieved from the Pearson correlation matrix. Experience of teaching yielded a positive correlation ($r = .22$, $p < .01$) with a subscale of online faculty satisfaction survey, institutional issues. Furthermore, positive correlation was found between working hours and online faculty

satisfaction (r = .25, p < .01) and subscale; instructor related issues (r = .28, p < .05), student-related issues (r = .23, p < .01). Along with that, a positive correlation was found between psychological distress and subscale of online faculty satisfaction survey; institutional issues (r = .30, p < .05). It was hypothesized in H3 that there is a significant negative correlation between fatigue and job satisfaction. The hypothesis was rejected, as it was observed that there was no significant correlation between the two variables (p = ns). Results also yielded no significant relationship between hours of work and fatigue (p = ns). The online faculty satisfaction survey was found to have a significant relationship with its subscales: Student Related Issues (r = .91, p < .05), Instructor Related Issues (r = .72, p < .05), and Institutional Issues (r = .44, p < .05). Student related issues was also found to have a significant relation among instructor related issues (r = .59, p < .05), and institutional issues (r = .30, p < .05).

Linear regression was applied to test the predictors for Job Satisfaction. The results are summarized in Table 3.

Table 3: *Linear Regression Analyses Predicting Job Satisfaction (N = 90)*

Variables	R^2	*B*	B	*SE*	*F*	*p*	CL 95% *LL*	CL 95% *UL*
Constant		92.18		5.54		.00	20.48	10.50
Psychological Distress	.08	-.41	-.28	.15	13.27	.01	.57	1.43
Working Hours	.06	.25	1.01	1.00	2.12	.02	-.11	.05

Note. CL = Confidence interval; LL = Lower Limit; UL = Upper Limit; p = Significance; B = Constance; B = Beta; SE = Standard error.

Psychological Distress and Working hours were added in Model 1. Online Faculty Satisfaction Survey (OFSS) is found to be significant and negative to Psychological distress (KPD). Online Faculty Satisfaction Survey (OFSS) is found to be significant and positive to working hours. For psychological distress, Model 1 produced R-square = .8 which was statistically significant [F (1, 88) = 5.82] which means that psychological distress contributed 8% of the variance, and for Working Hours, R-square = .6 which was statistically significant [F (1.88) = 7.63] which means that working hours contributed 6% of the variance. Conclusively, the overall model for predicting Job Satisfaction, the predictors' Kessler's Psychological distress, ($ß$ = -.41, p > .05) was not significant, nor working hours ($ß$ = -.1.01, p > .05) was significant.

Discussion

The results of the study revealed that there is a relationship between psychological distress, fatigue, and job satisfaction. Moreover, the study revealed that there is a positive relationship between psychological distress and fatigue and a negative relationship between psychological distress and job satisfaction. This indicates that teachers who experience psychological distress are more likely to experience fatigue as well, and those teachers who experience psychological distress and less likely to be satisfied with their job. However, the majority of the population had an overall less job satisfaction and higher psychological distress. This could be attributed to the fact, that research participants are married women and most of them were working for more than 6 or longer hours. Liu and Ramsey (2008) found that women experience less job satisfaction than men, especially satisfaction from work conditions, and a number of researchers have noted that female teachers report higher stress than male teachers, possibly due to higher levels of the overall workload. The literature clearly established that employees who are working for greater hours are more likely to be fatigued and experience greater psychological distress, resulting in a low level of job satisfaction (Greenglass & Burke, 2003).

Additionally, the experience of teaching by teachers yielded a positive correlation with institutional issues. This indicated that teachers who have greater experience of teachers are more likely to have institutional issues, such as complaints regarding higher workload, compensation, evaluation, and preparation. Furthermore, a negative significant correlation was found between psychological distress and student-related issues, such as lack of interactions, lack of motivation, poor access to education, poor flexibility, and lack of communication tools.

While previous international studies have documented the interplay between psychological distress, fatigue, and job satisfaction among educators, this study contributes to the field by offering insights rooted in the Pakistani educational and cultural context. Teachers in this study faced not only digital and pedagogical challenges but also socioeconomic pressures, gendered expectations, and systemic limitations, factors that are often underrepresented in the literature. The results underline the importance of contextualized well-being policies for teachers, especially in low-resource educational settings.

Despite the study's modest sample size, the data reflect consistent patterns that support the urgent need for teacher-focused mental health frameworks, tailored professional development, and investment in

digital infrastructure. Future research with broader samples across multiple regions of Pakistan is recommended to validate and expand upon these findings.

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