



Impact of Online Teaching Experience During Covid-19 Pandemic on Psychological Health: Moderating Role of Coping Strategy

Ammar Ahmad,¹ Mazhar Iqbal,² & M. Zubair³

Abstract:

This study aims to examine the problems faced by high school teachers during COVID-19 pandemic and its impact on psychological health: moderating role of coping strategies. Cross sectional research method was used; a sample of 200 was selected from high school teachers from Islamabad and Kohat through purposive sampling. An online teaching questionnaire was used for measuring the online teaching experience of high school teachers. The DASS scale was used to measure the psychological health of high school teachers, and for coping strategies, select Brief-Coping Scale. Furthermore, the findings of this study demonstrates that significant positive association of online teaching experience questionnaire and its sub scale with Brief-Cope Scale (Problem focused coping), Brief-Cope Scale (Emotion focused coping), Brief-Cope Scale (Avoidant coping), and Brief-Cope Scale Total. The result also shows no association of online teaching experience scale with psychological health sub scales depression, anxiety, and stress. the findings further show the moderation between online teaching experience, coping strategies, and psychological health the results show the moderation between all the three variables.

Keywords: Pakistan, covid-19 pandemic, online teaching, psychological health, coping strategy

INTRODUCTION

The worldwide COVID-19 pandemic epidemic has had an impact on nearly all countries and territories. In Wuhan, China, the epidemic was first discovered in December 2019. Public was admonished by nations all over the world to exercise caution. Hand washing, donning face masks, maintaining a physical distance, and avoiding large crowds and assemblies have all been public health precautions. Lockdown and homebound strategies have been used to reduce the curve and halt the disease's transmission (Sintema, 2020). According to Wang, et al. (2020), the virus can spread through breathing and close contact, and in severe cases, it can result in a condition termed acute respiratory distress syndrome (ARTS) and fatality.

¹ MS Scholar, Department of Psychology, International Islamic University, Islamabad, Pakistan. Email: muhammadaunctn@gmail.com

² Assistant Professor, Department of Psychology, International Islamic University, Islamabad. Email: mazhar.iqbal@iiu.edu.pk

³ MS Scholar, Department of Psychology, International Islamic University, Islamabad. Email: zubairpaflt@gmail.com

In terms of mental health, social isolation can exacerbate the signs of stress, anxiety, and depression. The health of the university population has been given more consideration in many studies, from those devoted to screening psychopathological symptoms to those focused on university adaptation and hosting at this stage of academic life, even though several groups are at a higher risk of developing symptoms (Duarte et al. 2020).

Somehow, many consider teaching to be one of the most demanding professions. Teachers now face additional demands as a consequence of the Corona virus pandemic response. Professors during the pandemic have to cope with the additional stressors of the outbreak itself, such as medical problems, shifts triggered from being working in their homes, and managing relationships with students, in addition to before the pandemic stresses such as heaviest administrative tasks duties, difficult interactions alongside colleagues as well as administrators at schools, and emotional labor (Johnson et al., 2005).

LITERATURE REVIEW

In Pakistan, classroom instruction is the cornerstone of the educational system. When the nation abruptly had to turn to online instruction due to COVID-19, changes were made to the country's general education system (Fauzi & Khusuma, 2020). According to a survey on primary school teachers, internet learning leaves 80% of them unsatisfied. Dissatisfaction was linked to a number of challenges encountered when learning online, such as the accessibility of resources, network and Internet use, the organization and evaluation of lessons, and parent participation. While certain challenges may be related to a country's level of technical development, others, such as organizational issues in the classroom and interpersonal conflicts, are not (Fauzi & Khusuma, 2020).

E-learning resources have been essential in facilitating student learning while schools and universities have been closed due to the pandemic (Subedi et al., 2020). Staff and student preparation for the new changes must be assessed, and appropriate support must be provided. A fixed mindset makes it difficult for people to adapt and change, but students with a growth mentality easily cope with a new learning environment. Online learning does not have a universal pedagogy. There are several topics with various requirements. Various ways to online learning are necessary for various disciplines and age groups (Doucet et al., 2020). Additionally, learning online provides students with physical disabilities more freedom to participate in class in a virtual environment with little need for physical exercise (Basilaia & Kvavadze, 2020).

Rationale of the Study

Online teaching is a new trend in our society due to pandemic scenarios. It becomes more difficult with the risk factors such as stress, anxiety and depression during the course of online teaching. There is a very little work done on online teaching experiences in Pakistani society especially with reference to high school teachers. This study will project an innovative insight toward exploring the experiences of high school teachers regarding on line teaching under the influence of risk factors as well as moderating role of coping strategies. It will help teachers to understand the importance of deteriorating as well as contributing factors during online teaching. The emphasis is to use coping measures amicably in order to counter the risk factors during on line teaching. This will improve the overall functioning of teachers as well as their wellbeing during pandemic situation in future.

Following are the objectives of the study, to validate the impact of online teaching on risk factors and coping strategies among primary school teachers. To ascertain the correlations among online teaching experience, risk factors and coping strategies. To find the impact of problems faced by teacher on age, gender, socio-economic status, risk factors and coping strategies. To explore the impact of coping strategies on psychological health.

Hypothesis

Following are the hypothesis of the study, there will be a negative relationship between online teaching experiences and risk factors among high school teachers. There will be a positive relationship between coping strategies and online teaching experience among high school teachers. There will be a negative relationship between age and online teaching experience among high school teachers. Men will have high coping strategies and psychological health as compared to women. Socioeconomic status will have a significant negative relationship with psychological health.

METHOD

Research Design

Cross-sectional research methodology was employed in this study.

Participants

Total 200 primary and secondary school teachers are selected as participants in the study sample, with an equal distribution of 100 male participants and 100 female participants. Purposive sampling technique was used to select the participants, only those participants are excluded who do not meet the inclusion criteria of the study.

Inclusion and Exclusion Criteria

The inclusion criteria for participant selection included all those participants with age 18 and above, participants were primary school teachers presently imparting online teaching. Individuals who suffer from major psychological / physical illness were excluded.

INSTRUMENTS

Demographic Sheet

The socio-demographic information sheet is designed to gather data about the participants like, Problems faced by Primary School teachers, Coping Strategies, Age, gender, school type and province of residence and other relevant variables were recorded.

Online teaching questionnaire

There were 16 closed-ended questions in the survey. The 16 questions included the following topics: school support, online teaching satisfaction, instructor abilities, assessment of students' motivation and communication during distance learning, influence of online learning on the individual, and coping. The questionnaire's responses were given using the 6-point Likert scale. Do you believe you are well-versed in the principles of online teaching generally? the first free-form query was: If you showed that you're having doubts, please identify your primary doubt; Regarding the query: "How happy are you overall regarding the online classroom activity? The following were

the open-ended questions: Why did you decide to respond in this manner, in your opinion? What about online instructions did you like best? What aspect of online instruction did you dislike the most? We added two additional questions on Internet use and time spent online to purpose other than online instruction in order to assess some aspects of online use during the lockdown. There were also questions with multiple-choice responses.

Depression Anxiety Stress Scale (DASS)

A collection of three self-report scales known as the Depression, Anxiety and Stress Scale having 21 Questions (DASS-21) is used to assess depression, anxiety, and stress-related emotional states. There are seven items total on every of all three DASS-21 scales, which are broken up into subscales with related material. The dysphoria, hopelessness, life-value reduction, self-destruction, lack of interest or involvement, anhedonia, and inertia scales measure depression. By measuring autonomic stimulation, muscle tension impacts, contextual anxiety, and subjective experiences of anxious affect, the anxiety scale evaluates anxiety. Levels of persistent nonspecific arousal are sensitive to the stress scale. The test evaluates trouble relaxing, anxious alertness, and a tendency to become easily upset or irritated, irritable or overly sensitive, or impatient. Summarizing the results for the relevant items yields the scores for depression, anxiety, and stress. The dimensional rather than categorical conceptualization of psychological pathology is the foundation of the DASS-21. The premise upon which the DASS-21 was developed (and which was supported by the research results) is that the variations in stress, anxiety, and depression experienced by normal people and clinical populations are, in essence, differences of degree.

Brief-Cope scale

A 28-item self-report questionnaire called the Brief-COPE was created to assess the effectiveness of coping strategies for stressful life events. The scale is effective in counselling situations for determining a person's good and unhelpful stress responses. With scores on the three subscales of Emotional coping techniques as well as problem-focused techniques, and Avoidant Coping, the scale can identify a person's main coping mechanisms. Also described are the coping strategies of self-distraction, denial, substance abuse, behavioral disinterest, emotional support, venting, humor, trust, blame oneself, religion, engaged coping, using practical assistance, positive reframing, and planning.

RESULTS

Table 1

Socio demographic characteristics of the study general population

Variables	Category	F	%
Gender	Male	100	50.0
	Female	100	50.0
Age	28	13	6.5
	29	2	1.0
	30	53	26.5
	32	1	0.5
	34	62	31.0

	35	67	33.5
	36	2	1.0
Number of Siblings	2	13	6.5
	3	42	21.0
	4	64	32.0
	5	40	20.0
	6	25	12.5
	7	16	8.0
Marital Status	Married	174	87.0
	Unmarried	26	13.0
Number of kids	0	33	16.5
	1	18	9.0
	2	36	18.0
	3	53	26.5
	4	30	15.0
	5	20	10.0
	6	4	2.0
	7	5	2.5
	8	1	0.5
Education	BA	24	12.0
	BSC	27	13.5
	MA	62	31.0
	MSC	52	26.0
	MS	35	17.5
Subject	English	43	21.5
	Urdu	40	20.0
	Mathematics	26	13.0
	Islamic studies	23	11.5
	Pakistan Studies	24	12.0
	Computer Science	5	2.5
	Science Subjects	39	19.5
Teaching Experience in Years	One year	5	2.5
	Two years	18	9.0
	Three years	21	10.5
	Four years	31	15.5
	Five years	32	16.0
	More than five years	93	46.5
Domicile	KPK	116	58.0
	Punjab	84	42.0
Monthly Salary	20000-30000	19	9.5
	31000-40000	20	10.0

41000-50000	21	10.5
51000-60000	37	18.5
61000-70000	22	11.0
71000-80000	30	15.0
81000-90000	51	25.0

Results indicates that in terms of gender both male and female are distributed equally male (n = 100) and female (n = 100). Further, findings indicated that in terms of age groups most of the participants are having 35 years of age with the percentage of (33.5). In terms of number of siblings most of the participants are having 4 siblings with the percentage of (32.0). Furthermore, according to marital status most of the participants are married (87.0). Moreover, findings indicate that in term of number of kids most of the participants are having three kids with percentage of (26.5), in terms of education most of the participants have done MA (31.0), in terms of subject most of the participants are teaching English (21.5), in terms of teaching experience most of the participants having teaching experience of more than five years with percentage of (46.5), in terms of domicile most of the participants are having the domicile from KPK (58.0), in terms of monthly salary most of the participants are having Eighty One Thousands to Ninety Thousands Salary per month with percentage of (25.0).

Table 2

Regression analysis of Challenges of Online Teaching during COVID-19 and Psychological Health (N = 200)

Variable	B	B	SE
Constant	12.8		6.61
OTEQ_S	1.06*	.25	.50
OTEQ_IS	-.21	-.06	.40
OTEQ_I	-1.36**	-.31	.47
OTEQ_C	1.75**	.38	.52
OTEQ_MS	-.65	-.16	.38
OTEQ_TF	-.24	-.06	.46
R ²	.10		

Table 2 shows the impact of online teaching experience on Psychological Health. Where R^2 value (.10) revealed that the predictor variable (online teaching experience) explained 10% of variance in the outcome variable (Psychological Health) with $F(6, 199) = 4.53, p < .01$. Further, the findings revealed that online teaching experience (student) is a positive predictor of Psychological Health ($\beta = 1.06, p < .01$) and online teaching experience (Instructor) is also a positive predictor of Psychological Health ($\beta = -1.36, p < .01$), and online teaching experience (content) is also a positive predictor of Psychological Health ($\beta = 1.75, p < .01$). The findings also revealed that online teaching experience (Institutional Support) is a negative predictor of Psychological Health ($\beta = -.21, p < .01$), online teaching experience (Motivational Support) is a negative predictor of Psychological Health ($\beta = -.65, p < .01$), online teaching experience (Technological Factors) is a negative predictor of Depression ($\beta = -.24, p < .01$).

Table 3

Moderation Estimates

	Estimate	SE	Z	P
COTCOV19_Total	-0.11628	0.05592	-2.079	0.038
SCS_Total	0.39168	0.07582	5.166	<.001
COTCOV19_Total * SCS_Total	-0.00365	0.00372	-0.982	0.326
Simple Slope Estimates				
Average	-0.1163	0.0560	-2.075	0.038
Low (-1SD)	-0.0677	0.0719	-0.941	0.347
High (+1SD)	-0.1649	0.0775	-2.127	0.033

Note. shows the effect of the predictor (COTCOV19) on the dependent variable (DASS) at different levels of the moderator (SCS)

DISCUSSION

The present research is conducted to explore the impact of online teaching on risk factors and coping strategies among primary school teachers, to ascertain the correlations among online teaching experience, risk factors and coping strategies, to find the impact of problems faced by teacher on age, gender, socio-economic status, risk factors and coping strategies, to find the impact of coping strategies on psychological health.

First, it was predicted that risk variables would have a bad correlation with high school teachers' experiences teaching online. Knowing job satisfaction, a crucial notion, is the first step in comprehending people's interactions with their employment (Judge et al., 2017). The perceived fit between what teachers want in their employment and what they think the teaching profession gives, in the words of Ho and Au (2006), is what affects how satisfied instructors are with their work. A Pre-Covid study claims that using the internet for educational purposes is neither necessary easier nor harder as doing so using traditional methods (McQuiggan, 2012). However, the quick transition to online learning would not be welcomed by all professors. It may be important to monitor any levels of discontent considering that job fulfilment has been identified as a critical source of motivation (Zhang et al., 2020).

The second hypothesis assumed that there would be a favorable correlation between high school teachers' experiences teaching online and their coping strategies. By the end of March 2020, 185 countries in Asia, Europe, the Middle East, the United States, and as a result of the global pandemic, Central and South America had completed closing their educational facilities, affecting over 1.54

billion children and teens. As a result, many educational systems all around the world have quickly shifted from in-person instruction in the classroom to online or remote instruction (Schleicher, 2020). According to Tuominen & Leponiemi (2020), the ongoing Covid-19 conundrum has offered a serious problem to the international educational community and will do so in the future. Almost nobody wanted to think that a situation like this might occur. The situation has been described as emergency online homeschooling (Milligan, 2020).

The third hypothesis predicts a positive relationship among the experience of teaching online and coping mechanisms. Teachers are crucial if students are to learn the lessons being taught by others during the pandemic. Tosun et al. noted the professors' ignorance of the existing state of affairs in 2021. According to Pentang (2021), in order for teachers to successfully convey what they know in every circumstance, they must use an accessible and effective pedagogy. Despite the problems brought on by the COVID-19 outbreak, teachers nevertheless assist pupils in learning by developing modules that act as study aids.

According to the fourth hypothesis, there won't be a strong correlation between ages with prior online teaching experience. The relevance of technological confidence for a supportive learning environment is heavily emphasized in the majority of studies focusing on retention and satisfaction in online learning. A study was also conducted to identify pre-entry factors related to retention. According to the study, prior computer experience may assist distinguish between students who successfully complete online learning distant schooling and those who do not. In an investigation on college online courses, basic computer skills were found to be a trustworthy determinant of persistence in online classes (Jan, 2015).

According to the fifth hypothesis, males and coping strategies will be positively correlated more strongly than women are. Some studies have demonstrated the moderating role of ways to cope in the relationship between work insecurity and mental health (either problem- or emotion-focused coping mechanisms). Another study found that the strategies employed either increase or ameliorate the psychological damage brought on by insecure work after speaking with a sample of workers from employment agencies (Menéndez-Espina et al., 2019).

According to the sixth hypothesis, there will be a significant inverse relationship between socioeconomic status and psychological health. The Corona Virus pandemic has a detrimental effect on a person's psychological health and significantly affects depressive mood, concern, and tension feelings (26.9%, 21.8%, and 48.1%, accordingly). Teenagers who experience depressive symptoms and anxiety lack the will to study, find it difficult to concentrate in the classroom, and they perform poor in school (Yuan et al., 2023).

CONCLUSION

The study suggests that there is a significant positive association of online teaching experience with Coping Strategy (Problem focused coping, Emotion focused coping, Avoidant coping). Further findings show the moderation between Online Teaching Experience, Coping Strategies, and Psychological Health the results show the moderation between all the three variables. It is important to note that these conclusions are based on the sample and methodology used in this study, and further research is needed to generalize these findings to broader populations.

Limitations

The following are limitations of this study:

- Firstly, Sample and generalizability: The study used a purposive sampling technique, which may introduce the fact that are making subjective or generalized assumptions when choosing participants. The sample consisted of 200 teachers from various secondary and primary schools in Islamabad and Kohat which may not represent other geographical locations. Therefore, caution should be exercised when extrapolating the results to other populations.
- Secondly, Self-report measures: The study relied on self-report measures to assess Challenges of Online Teaching Experience, Psychological Health, and Coping Strategy. Self-report measures are subject to response biases, such as social desirability or recall bias, which may impact the accuracy and reliability of the data collected.
- Lastly, Use Qualitative method: The future researchers have to also select qualitative data on such sample so that they can explore the participant's issues more conveniently and correctly and also on the basis of qualitative data the research work will be more resilient and also help the students in future.

Suggestions & Implications

These are the suggestions and Implications of the study

- It is recommended that future researchers use the mixed method.
- In future studies, it is suggested to select other higher educational groups.
- Moreover, in future researches it is recommended to use longitudinal study method because it will help to check the cause and effect relationship.
- The findings of the present study will add a piece of new knowledge for students and also for teachers
- The findings of the present study will help the teachers in the management and improvement of Online learning method.

References:

- Basilaia, G., & Kvavadze, D. (2020). Transition to online education in schools during a SARS-CoV-2 coronavirus (COVID-19) pandemic in Georgia. *Pedagogical Research*, 5(4), 1-9.
- Doucet, A., Netolicky, D., Timmers, K., & Tuscano, F. J. (2020). *Thinking about pedagogy in an unfolding pandemic: An independent report on approaches to distance learning during COVID19 school closures*. Education International.
- Duarte, M. d. Q., Santo, M. A. d. S., Lima, C. P., Giordani, J. P., & Trentini, C. M. (2020). COVID-19 e os impactos na saúde mental: Uma amostra do Rio Grande do Sul, Brasil. *Ciência & Saúde Coletiva*, 25, 3401-11.
- Fauzi, I., & Khusuma, I. H. S. (2020). Teachers' elementary school in online learning of COVID-19 pandemic conditions. *Jurnal Iqra': Kajian Ilmu Pendidikan*, 5(1), 58-70.
- Ho, C.-L., & Au, W.-T. (2006). Teaching satisfaction scale: Measuring job satisfaction of teachers. *Educational and psychological Measurement*, 66(1), 172-85.
- Jan, S. K. (2015). The relationships between academic self-efficacy, computer self-efficacy, prior experience, and satisfaction with online learning. *American Journal of Distance Education*, 29(1), 30-40.

- Johnson, S., Cooper, C., Cartwright, S., Donald, I., Taylor, P., & Millet, C. (2005). The experience of work-related stress across occupations. *Journal of Managerial Psychology, 20*(2), 178-87.
- Judge, T. A., Weiss, H. M., Kammeyer-Mueller, J. D., & Hulin, C. L. (2017). Job attitudes, job satisfaction, and job affect: A century of continuity and of change. *Journal of Applied Psychology, 102*(3), 356-74.
- Li, Q., & Akins, M. (2005). Sixteen myths about online teaching and learning in higher education: Don't believe everything you hear. *TechTrends, 49*(4), 51-60.
- Li, S., Wang, Y., Xue, J., Zhao, N., & Zhu, T. (2020). The impact of COVID-19 epidemic declaration on psychological consequences: A study on active Weibo users. *International Journal of Environmental Research and Public Health, 17*(6), 2032.
- Menéndez-Espina, S., Llosa, J. A., Agulló-Tomás, E., Rodríguez-Suárez, J., Sáiz-Villar, R., & Lahseras-Díez, H. F. (2019). Job insecurity and mental health: The moderating role of coping strategies from a gender perspective. *Frontiers in Psychology, 10*, 1-10.
- McQuiggan, C. A. (2012). Faculty development for online teaching as a catalyst for change. *Journal of Asynchronous Learning Networks, 16*(2), 27-61.
- Milligan, I. (2020). Emergency remote teaching: A Post-Secondary Reality Check [blog post].
- Pentang, J. T. (2021). The concept of curriculum and its foundation. *The Educator's Link, 1*(6), 9.
- Pokhrel, S., & Chhetri, R. (2021). A literature review on impact of COVID-19 pandemic on teaching and learning. *Higher Education for the Future, 8*(1), 133-41.
- Qian, M., Wu, Q., Wu, P., Hou, Z., Liang, Y., Cowling, B. J., & Yu, H. (2020). Psychological responses, behavioral changes and public perceptions during the early phase of the COVID-19 outbreak in China: A population based cross-sectional survey. *MedRxiv*.
- Salari, N., Hosseini-Far, A., Jalali, R., Vaisi-Raygani, A., Rasoulpoor, S., Mohammadi, M., Rasoulpoor, S., & Khaledi-Paveh, B. (2020). Prevalence of stress, anxiety, depression among the general population during the COVID-19 pandemic: a systematic review and meta-analysis. *Globalization and Health, 16*(1), 1-11.
- Schleicher, A. (2020). Education disrupted education built. Spotlight: Quality education for all during Covid-19 crisis. OECD/Hundred Research Report No. 011. https://hundredcdn.s3.amazonaws.com/uploads/report/file/15/hundred_spotlight_covid-19_digital.pdf.
- Sintema, E. J. (2020). Effect of COVID-19 on the performance of grade 12 students: Implications for STEM education. *Eurasia Journal of Mathematics, Science and Technology Education, 16*(7), 1-6.
- Subedi, S., Nayaju, S., Subedi, S., Shah, S. K., & Shah, J. M. (2020). Impact of E-learning during COVID-19 pandemic among nursing students and teachers of Nepal. *International Journal of Science and Healthcare Research, 5*(3), 68-76.
- Torales, J., O'Higgins, M., Castaldelli-Maia, J. M., & Ventriglio, A. (2020). The outbreak of COVID-19 coronavirus and its impact on global mental health. *International Journal of Social Psychiatry, 66*(4), 317-20.
- Tosun, N., Mihci, C., & Bayzan, Ş. (2021). Challenges encountered by in-service K12 teachers at the beginning of the Covid-19 pandemic period: The case of Turkey. *Participatory Educational Research, 8*(4), 359-84.
- Tuominen, S., & Leponiemi, L. (2020). A learning experience for us all. Spotlight: Quality education for all during Covid-19 crisis. OECD/Hundred Research Report #011. https://hundredcdn.s3.amazonaws.com/uploads/report/file/15/hundred_spotlight_covid-19_digital.pdf.

- Wang, C., Pan, R., Wan, X., Tan, Y., Xu, L., Ho, C. S., & Ho, R. C. (2020). Immediate psychological responses and associated factors during the initial stage of the 2019 coronavirus disease (COVID-19) epidemic among the general population in China. *International Journal of Environmental Research and Public Health*, *17*(5), 1-25.
- Yuan, Y., Zhou, A., & Kang, M. (2023). Family Socioeconomic status and adolescent mental health problems during the COVID-19 pandemic: The Mediating roles of trait mindfulness and perceived stress. *International Journal of Environmental Research and Public Health*, *20*(2), 1-14.
- Zhang, S. X., Huang, H., & Wei, F. (2020). Geographical distance to the epicenter of Covid-19 predicts the burnout of the working population: Ripple effect or typhoon eye effect? *Psychiatry Research*, *288*, 1-2.

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