



## Fear of Covid-19, Self-efficacy as a Mediating factor and Mental Well-being Among School Teachers

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### ARTICLE INFO

### ABSTRACT

#### Article History:

Received: May 27, 2024  
Revised: August 27, 2024  
Accepted: August 28, 2024  
Available Online: August 29, 2024

#### Keywords:

Covid-19  
Self-Efficacy  
Mental Well-Being  
School Teachers

#### Funding:

This research received no specific grant from any funding agency in the public, commercial, or not-for-profit sectors.

With self-efficacy serving as an intermediary variable, this study intends to investigate the connection between teachers' mental well-being (MWB) and their anxiety of COVID-19. A total of 107 teachers were recruited from different schools in Faisalabad and Lahore City. The data were collected using validated questionnaires measuring fear, self-efficacy and mental well-being. Fear of the coronavirus (COVID-) 19 Scale, was used. The model 2 revealed that the decreased ( $B = 0.27$ , 95% CI [-0.49, -0.05], SE  $B = 0.11$ ,  $t(104) = -2.45$ ,  $p = .01$ ). Teachers aged 21 to 30 reported higher average fears ( $M = 20.88$ ,  $SD = 5.66$ ) than those aged 31 to 40 and 41 to 50. Findings from this research helps for interventions to improve teacher self-efficacy and support their mental health during times of crisis.

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## 1. Introduction

A highly contagious virus spread to almost every country in December 2019. Myalgia, diarrhea, fever, and exhaustion were typical symptoms (Nooripour et al., 2021). Globally, there is a significant deal of worry and anxiety due to the high death rate of this pandemic and its effects on education, the economy, and society (Wu et al., 2020). This virus's pandemic nature has made many fearful of its propagation. Furthermore, stigmatizing this illness increases a person's vulnerability to infection (Ahorsu et al., 2022). Fear and terror spread throughout society as a result of individuals being on high alert to defend themselves and their loved ones because to COVID-19. The fear of COVID-19 is expected to grow because to its unique characteristics and the uncertainty surrounding its destiny. Fear can impair immunity and increase susceptibility to illnesses like COVID-19 (Tsang, Avery, & Duncan, 2021). However, the nature of the situation, the unusual circumstances associated with COVID-19, and the fear of COVID-19 demonstrate that MWB has also been significantly impacted by this crisis. Thus, the purpose of this research was to draw attention to the psychological impact of COVID-19. In this regard, we attempt to connect school teachers' MWB to their fear of COVID-19. The study discovered that fear of COVID-19 and mental health are correlated, and that self-efficacy mediates the link between instructors. The structure of mental health is multifaceted and intricate.

A worse quality of life is strongly linked to mental health, which is directly linked to fear of COVID-19. Your ideas, feelings, and ability to handle life's highs and lows are all aspects of your mental health. Large life events, like sickness, redundancy, or loss, over which we have little to no control, frequently have an impact on our mental health. Women with at least one current mental health condition were shown to be independently linked to greater levels of depression and anxiety as well worse mental well-being (Amy Dawell et al., 2020). Furthermore, prior research has demonstrated that COVID-19 negatively affects nursing

professionals' MWB (Chen et al., 2020). Previous research has identified a number of mediating elements in the association between MWB and COVID-19 worries (Krok, Zarzycka, & Telka, 2021; Siddique, Ahmed, & Hossain, 2021). We discovered in this study that the association between fear of COVID-19 and MWB is mediated by self-efficacy (Ahmed, Azhar, & Mohammad; Dier M Ahmed, Z Azhar, & Aram J Mohammad, 2024; Dier Mousa Ahmed, Zubir Azhar, & Aram Jawhar Mohammad, 2024; Mohammad, 2015a, 2015b; Mohammad & Ahmed, 2017).

Self-efficacy is the idea that one can plan and execute the actions needed to achieve a specific performance (Bandura, 1977). According to Bandura (2006), personal self-efficacy beliefs are the most important and prevalent factor in people's decision-making and execution, and they serve as the foundation for human behavior. Helplessness, avoidance, or retreat are the results of low self-efficacy (Zimmerman, 1989). According to Bandura (1977), self-efficacy comes from four primary sources: verbal persuasion, performance experiences, indirect experiences, and emotional states. Self-efficacy is influenced by a person's emotional condition, social support for performing a task, and other people's approbation (Bandura, 2006). Although, worry and dread might undermine one's confidence (Bandura, 2006). According to Bandura (2006), this circumstance is explained as follows: Anxiety and despair lower people's evaluations of their own abilities, whereas positive emotional states raise them. School performance (Honicke & Broadbent, 2016) and other factors like motivation, persistence, dedication, interest in learning, and engagement may all be predicted by academic self-efficacy, according to empirical research (Galyon et al., 2012; Weber & Ruch, 2012). Similarly, emotionality and academic satisfaction are positively correlated with self-efficacy (Eakman et al., 2019). From a different perspective, low level of self-efficacy is associated with non-adaptive academic behavior, which leads to poor academic performance and a decrease in commitment to schoolwork (Mao et al., 2019). It also causes psychological issues in adolescents, including depression, stress, and anxiety (Keye & Pidgeon, 2013; Khan, 2013; Ye, Posada, & Liu, 2018).

### **1.1. Rational**

The COVID-19 pandemic has presented unprecedented challenges to various professional groups, with school teachers whose responsibility is to maintain academic continuity and to manage their personal health and well-being. Teachers were required to adapt to remote teaching methods, to cope with the stress of technological changes and to address students' emotional and academic needs, while coping with their own fear and anxiety related to the pandemic. These challenges were particularly pronounced early stages of the pandemic when uncertainty and fear reached their peak. Understanding how COVID-19 fear affects the mental well-being of teachers (MWBs) is essential, given their key role in shaping educational outcomes and supporting student mental health. Teachers' self-efficacy, defined as their belief in their ability to deal with obstacles, can act as a buffer against the harmful impacts of COVID-19-related fear on their MWB. Focusing on school teachers, this study aims to highlight their specific challenges during the pandemic and provide actionable insights into improving their psychological resistance. To better establish this research, the study explicitly aims to address the following objectives:

- ✓ To study how self-efficacy mediates the relationship between fear and mental well-being among school teachers.
- ✓ To examine how demographic factors, especially age, affect the relationship between fear of COVID-19, self-efficacy, and mental well-being.

### **1.2. Research Questions**

1. How does self-efficacy mediate the relationship between fear of COVID-19 and mental well-being in school teachers?
2. Demographic factors, such as age, are they balanced with the relationship between fear of COVID-19, self-efficacy, and mental well-being?

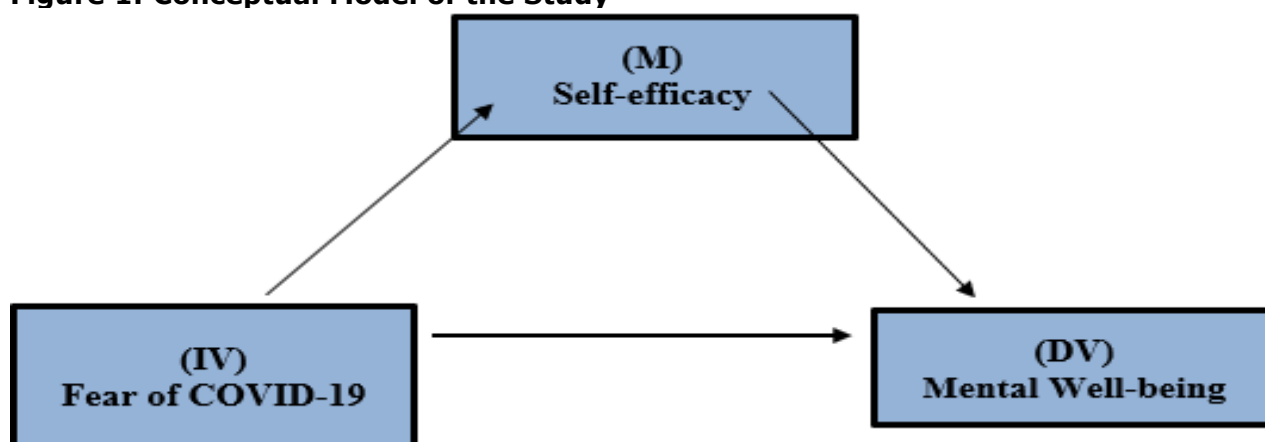
## **2. Theoretical Framework**

James (1884) and Lang (1994) theory of emotions provides the theoretical basis for this study, emphasizing how emotions arise from the perception of physiological changes induced by stimuli. According to these theories, a perceived object becomes emotionally significant when it stimulates sensory and physical reactions (Cannon, 1927). This connection between

perception, emotion, and bodily change serves as a basis for understanding how fear, as an emotional reaction, can affect psychological processes. In this study, fear of COVID-19 is examined as a specific emotional trigger, aligned with the framework of emotional theory. Fear is known to provoke physical and psychological changes that disturb balance, as Dana (1921) and Cannon (1927) noted. These changes may result in increased anxiety and secondary trauma, especially in situations where individuals feel overwhelmed by external threats (Barlow, 2004; Metzger et al., 2004). The self-efficacy mediation mechanism provides a critical link between the emotional response of fear and its psychological consequences. According to emotional theory, emotions not only influence our perceptions, but also shape our response strategies (Scherer, 2005). Self-efficacy, or faith in one's ability to manage and overcome challenges, can act as a buffer by mitigating the negative effects of fear on mental health. In particular, teachers with higher self-efficacy could interpret fear-inducing stimuli, such as the COVID-19 pandemic, as challenges rather than threats, thereby reducing the likelihood of secondary traumatic stress. Hence, this study studied the occurrence of fear as a trigger for secondary traumatic stress utilizing the theoretical framework of emotional theory.

## 2.1. Conceptual Model

**Figure 1: Conceptual Model of the Study**



The conceptual model (Figure 1) examines the mediation role of self-efficacy in the relationship between fear of COVID-19 and mental well-being. The fear of COVID-19, as an independent variable (IV), is assumed to influence mental well-being (DV) directly and indirectly through self-efficacy (measuring). The direct path explores the immediate effects of fear on well-being, while the indirect path examines how self-efficacy can buffer or exacerbate this relationship. This model helps to explain the mechanisms by which pandemic-related fears affect the psychological outcomes of school teachers.

## 3. Methodology

### 3.1. Sample

To collect data for the current investigation, used non-probability convenience sampling method. This method was chosen because it was practical in accessing participants from various schools in Lahore and Faisalabad. Given the time constraints and the focus on a specific group of participants who were easily available and willing to participate, this approach was considered appropriate. A total of 107 female teacher were selected for the study. The inclusion criteria required participants to provide informed consent, have a minimum qualification of graduation and be between the ages of 21 and 50. Furthermore, demographic data such as age, family size and long-term employment experience were collected. Demographic characteristics of participants are presented in Table No. 2.

**Tables 1: Demographic variables of participants (n = 107)**

Variables	Frequency (f)	Percentage (%)
Age		
21-30	78	72.9
31-40	19	17.8
41-50	10	9.3
No of family members		
1-5	42	39.3

5-10	47	43.9
10-15	18	16.8
Duration of Job		
0-10	88	82.2
11-20	19	18.8

### 3.2. Measures

A demographic form is utilized to investigate the participants' demographic attributes, for instance, name, age, gender, socioeconomic status, marital status, family system, number of family members, organization, position, duration of job, duty hours, duty shift, and residence. General self-efficacy scale, or GSE (Schwarzer, 1995), was employed in this study to gauge instructors' self-efficacy. This scale measures self-efficacy based on self-reporting. There are ten components on this scale. This scale's internal dependability is equivalent to Cronbach alpha of 0.76 to 0.90. There is a correlation between the overall self-efficacy measure and feelings, optimism, and job satisfaction. By calculating the sum of each item, the final score was determined. The GSE's overall score ranges from 10 to 40; higher scores indicate that instructors are more self-sufficient. Teachers' mental health was assessed using the Warwick–Edinburgh Mental Well-being Scale (WEMWBS University of Warwick and University of Edinburgh, 2006). All of the elements on the 14-point WEMWBS scale, which measures mental health and includes subjective well-being, are favorably constructed. The total number of responses to every question on the Likert scale, which ranges from 1 to 5, was used to determine the final score. The scale's components are all equally weighted. The scale has minimum score of 14 and a maximum score of 70. Teachers who received higher marks had better mental health. The WEMWBS has shown strong test-retest reliability, normal distribution, and acceptable content validity. School teachers' fear of the corona virus was measured using the Covid-19 Fear Scale (Ahorsu et al., 2022). A recently created measure for evaluating several facets of pandemic anxiety is the COVID-19 Fear Scale (FCV-19S). This scale assesses the degree of dread related to COVID-19 and has seven components. Each question has a maximum score of 1 and a maximum score of 5. Each score (ranging from 7 to 35) was added to determine the final score.

### 3.3. Procedure

In this research , the effect of self-efficacy as a mediator between school teachers' psychological health and their anxiety of COVID-19 was examined by a mediation analysis using SPSS. The analysis was carried out using the PROCESS macro created by Andrew F. Hayes. First, the data for the three variables—covariant fear (independent variable), self-efficacy (mediator) and mental well-being (dependent variable) were entered into SPSS. To investigate how these variables relate to one another, correlations and description statistics were computed. Using PROCESS macro, a mediation model was tested, the results show whether self-efficacy significantly mediated the relationship by examining direct, indirect and total effects, as well as confidence intervals for the indirect effect. Data were collected using validated questionnaires that measure mental well-being, self-efficacy and COVID-19-related fear. School teachers who actively taught during the COVID-19 pandemic. Teachers aged between 25 and 60. Teachers who are on leave or do not teach during the pandemic. Individuals with diagnosed pre-existing mental health problems. All participants received informed consent to ensure their voluntary participation. Throughout the study, participants were kept anonymous and confidential, and they were made aware of their freedom to discontinue participation at any moment. The institutional review committee (IRB) requested and granted ethical permission.

## 4. Results

### 4.1. Descriptive Analysis

**Table 2: Descriptive Statistics of Fear of COVID-19, Self-efficacy and Mental Well-being (n = 107)**

Scales	N	M	SD	Range	Skewness	Kurtosis
Fear of COVID-19	7	20.26	5.79	7-35	-.14	-.26
Self-efficacy	10	30.65	4.69	10-40	-.36	2.41
Mental Well-being	14	50.63	7.37	14-70	-.25	-.24

The descriptive data for participants' self-efficacy, mental health, and fear of COVID-19 (n = 107) are shown in Table 2. With ratings ranging from 7 to 35, the average score for dread

of COVID-19 was 20.26 (SD = 5.79). With a kurtosis of -0.26 and a minor negative skewness (Skewness = -0.14), the distribution of COVID-19 fear showed a reasonably symmetrical distribution with light tails. With a range of 10 to 40, the mean score for self-efficacy was 30.65 (SD = 4.69). The kurtosis was noticeably positive (Kurtosis = 2.41), indicating a larger peak in the distribution than a normal distribution, while the skewness of self-efficacy was -0.36, showing a minor tendency toward higher self-efficacy levels. With a range of 14 to 70, the mean score for mental well-being was 50.63 (SD = 7.37). The kurtosis was -0.24, indicating a distribution that is near normal, while the skewness was -0.25, indicating a roughly symmetrical distribution.

#### 4.2. Inferential Analysis

**Table 3: Summary of Model Wise Linear Regression Analysis for Mediation of Self-efficacy Between Fear of COVID-19 and Mental Well-being**

Variable	Mental Well-being			$\beta$	R <sup>2</sup>	$\Delta R^2$
	B	95% CI	S.E B			
Model 1					.08	.08***
Constant	58.00***	(53.03, 62.98)	2.51			
Fear of COVID-19	-.36***	(-.60, -.13)	.12	-.28***		
F (1-105)	9.35					
Model 2					.25	.17***
Constant	35.41***	(25.08, 45.75)	5.21			
Fear of COVID-19	-.27***	(-.49, -.05)	.11	-.21***		
Self-efficacy	.65***	(.38, .92)	.14	.41***		
F (2-104)	17.28					

Note: \*\*\* $p < .01$ ; Unstandardized Coefficients = B; Standardized Coefficients =  $\beta$ ;  $p$  = level of significance; CI= Confidence Interval

Table 3 presents a summary of linear regression analyses conducted to examine mediating effect of self-efficacy on the relationship between fear of COVID-19 and mental well-being. In Model 1, fear of COVID-19 was found to have a significant negative effect on mental well-being (B = -0.36, 95% CI [-0.60, -0.13], SE = 0.12, beta = -0.28), indicating that higher levels of fear are associated with lower mental well-being. The model accounted for 8% of the variance in mental well-being (R<sup>2</sup> = .08), with a significant overall model fit (F(1, 105) = 9.35,  $p < .01$ ). When self-efficacy was included to Model 2 as a predictor, the explained variance increased significantly to 25% (R<sup>2</sup> = .25,  $\Delta R^2 = .17$ ), demonstrating a considerable improvement in the model fit. Fear of COVID-19 had a negative direct impact on mental health (B = -0.27, 95% CI [-0.49, -0.05], SE = 0.11, beta = -0.21), indicating that self-efficacy plays a role in mediating this association. The relevance of self-efficacy in improving mental well-being was highlighted by the considerable positive effect it had on mental well-being (B = 0.65, 95% CI [0.38, 0.92], SE = 0.14, beta = 0.41). Model 2 likewise had a significant overall model fit (F(2, 104) = 17.28,  $p < .01$ ). These data lend credence to the idea that self-efficacy mediates the connection between COVID-19 fear and mental well-being.

**Table 4: One-way ANOVA Table Comparing Fear of COVID-19, Self-efficacy and Mental Well-being on Different Ages Among School Teacher (n=107)**

Variables	21-30 Years (N=78)		31-40 Years (N=19)		41-50 Years (N=10)		F	sig
	M	SD	M	SD	M	SD		
FC-19	20.88	5.66	19.21	6.18	17.40	5.46	5.34	.00
SE	31.21	5.02	32.89	3.46	32.80	3.74	2.02	.13
MWB	49.28	6.99	53.68	7.98	55.30	5.93	1.32	.27

Note: N = Numbers; M = Mean; SD = Standard Deviation; F = F Value;  $p$  = Significance Level; FC19 = Fear of COVID-19; SE = Self-efficacy; MWB = Mental Well-being.

Table 4 presented that for fear of COVID-19 significant differences were observed across age groups (F(2, 104) = 5.34,  $p < .01$ ). Teachers aged 21-30 years reported a higher mean level of fear of COVID-19 (M = 20.88, SD = 5.66) compared to those aged 31-40 years (M = 19.21, SD = 6.18) and 41-50 years (M = 17.40, SD = 5.46). The differences between age groups were statistically significant, suggesting that younger teachers experienced greater fear of COVID-19. Regarding self-efficacy, there were no significant differences between age groups (F(2, 104) = 2.02,  $p = .13$ ). Mean self-efficacy scores were similar across the age groups, with teachers aged 21-30 years (M = 31.21, SD = 5.02) having slightly lower self-efficacy compared

to those aged 31-40 years ( $M = 32.89$ ,  $SD = 3.46$ ) and 41-50 years ( $M = 32.80$ ,  $SD = 3.74$ ). For mental well-being, differences across age groups were also not statistically significant ( $F(2, 104) = 1.32$ ,  $p = .27$ ). The mean scores were ( $M = 49.28$ ,  $SD = 6.99$ ) for 21-30 years group, ( $M = 53.68$ ,  $SD = 7.98$ ) for the 31-40 years group, and ( $M = 55.30$ ,  $SD = 5.93$ ) for 41-50 years group, indicating that mental well-being did not vary significantly with age among teachers in this sample.

## **5. Discussion**

The current study employs self-efficacy as an intermediary variable to examine the association between two variables: teachers' mental health (MH) and dread of COVID-19. The findings underline the pandemic's psychological impact on educators and suggest that self-efficacy can help mitigate these impacts. COVID-19 dread has demonstrated a strong inverted association with mental health, consistent with prior study (Ahorsu et al., 2022; Tsang, Avery, & Duncan, 2021), emphasizing how pandemic-related worries contribute to stress, anxiety, and psychological distress. This is particularly important for educators who face not only health risks, but also the challenge of adapting to remote teaching. However, the dependence on self-reported measures can lead to bias, and regional variations in COVID-19 policies and support systems have not been taken into account, which could influence the degree of fear and its impact on mental health. Future research could address these contextual variables in order to deepen understanding. The most remarkable finding of the study is the partial mediating role of self-efficacy. The inclusion of self-efficacy in Model 2 reduced the negative impact of COVID-19 fear on mental health, underlined its protective role, and aligned with Bandura's theory (1977, 1995) that greater self-efficacy increases the ability of individuals to manage stress factors. Although this highlights the need to promote self-efficacy among teachers, cross-sectional design limits causal interpretations.

Long-term research could confirm whether enhancing self-efficacy directly improves mental health outcomes. In addition, while these findings support previous studies (Bandura, 2006; Eakman et al., 2019), the mechanisms by which self-efficacy moderates this relationship, such as problem solving or emotional regulation strategies, are still unexplored and warrant further research. Age differences in the fear of COVID-19 were obvious, with younger teachers (aged 21–30) reporting higher levels of fear than their older colleagues, in line with research linking young people to greater pandemic anxiety (Satici et al., 2021). This may reflect concerns about job security, career stability, or lack of experience in crisis management. However, no significant age differences in self-efficacy or mental health were observed, suggesting that professional experience and training can contribute to a consistent sense of competence between age groups. The uniformity of mental health results across age groups indicates the pervasive psychological impact of the pandemic on educators. Nevertheless, the study does not take into account potential cohort effects or access to support networks that could affect these results. A wider exploration of these factors in future studies could provide more nuanced insights. The study is not without limitations. Its cross-sectional design excludes causal conclusions, and the sample may not fully represent the experiences of teachers in different regions or educational environments, limiting generalization. Despite these limitations, the findings provide valuable insights into the interaction between fear of COVID-19, self-efficacy and mental health, while emphasizing the importance of interventions that increase self-efficacy to buffer the psychological challenges posed by future crises.

### **5.1. Implications**

The results of the study have important applications in the real world, particularly in support of teachers' mental health during emergencies. Interventions aimed at improving teachers' self-efficacy could be a valuable strategy to counteract the harmful effects of fear on mental health. For example, professional development programmes focusing on adaptation strategies, stress management and resilience building in educational environments can provide teachers with tools to effectively deal with stress factors. Specific interventions could include workshops on time management during crises, mindfulness-based stress reduction techniques, or training in adaptive teaching methods for emergency situations such as remote learning. Schools and educational institutions should give priority to the psychological well-being of teachers by providing accessible mental health support services, such as advice or workshops on adaptation mechanisms. Furthermore, the promotion of a positive and supportive workplace environment that encourages open communication, peer collaboration and recognition of teachers' efforts can further improve their mental health. In addition, the study highlighted the

need for targeted support for younger teachers who may experience higher levels of fear and anxiety. To address this problem, schools could implement peer support groups or mentoring programs specifically designed for younger teachers. These programmes could be linked to more experienced educators who can provide guidance, emotional support and practical advice on managing stress and uncertainty in the classroom. In addition, self-efficacy workshops aimed at boosting confidence in managing teaching responsibilities during crises could be tailored to younger teachers.

## **6. Conclusion**

This study sheds light on the psychological effects of COVID-19 on educators, emphasizing the importance of self-efficacy in reducing the negative consequences of fear on mental health. The findings underscore the need of programs that increase teachers' self-efficacy as a method for enhancing their mental health during emergencies. By cultivating a sense of confidence and control, educators are better equipped to face the challenges of crises such as the pandemic, which in turn can improve their psychological resilience and the quality of education they provide. In addition to these immediate implications, the study emphasizes the need for a continuous support system that gives priority to teachers' mental health, especially during uncertain times. Future research should explore additional factors, such as social support or resistance, which may further mediate or buffer the relationship between fear and mental well-being. Furthermore, the extension of this research to other occupations affected by the pandemic could reveal broader applications for self-efficacy interventions in various sectors. Through the identification of effective strategies to enhance self-efficacy and mental health, this study paves the way for more comprehensive and long-term solutions to support educators and other frontline workers in future crises.

### **6.1. Limitations and future research directions**

Despite the useful insights presented by this study, some limitations should be considered. The data's cross-sectional nature makes it difficult to draw causal conclusions. Long-term research are needed to study how anxiety, self-efficacy, and mental health change over time, particularly in reaction to the pandemic's ongoing consequences. Furthermore, while this study focused on teachers, future research could look into whether similar trends emerge in other sectors affected by the pandemic, such as health care or front-line workers. The research of these links in various occupations may have a broader impact on mental health interventions during times of stress. Future research should look into various mediators and moderators, such as social support, resilience, adaptive techniques, and age, to help understand the complex relationship between fear and mental well-being. Understanding how resilience or social support networks mitigate the influence of fear on mental health, for example, could lead to more tailored interventions that address aspects other than self-efficacy. This would offer a more holistic strategy to assisting people in high-pressure occupations during emergencies. Future research should aim for a more inclusive sample that includes both male and female teachers in order to provide a thorough understanding of the pandemic's psychological effects on teachers of diverse genders. This would allow for more robust comparisons and the creation of gender-sensitive treatments that address the specific needs of both male and female instructors.

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