

Examining the Mediating Role of the Fear of COVID-19 in the Relationship Between Anxiety and Burnout Levels Among Teachers in Turkey

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Abstract

The COVID-19 pandemic stands as one of the most significant challenges confronting education and training systems worldwide. Since the early stages of the pandemic, teachers have experienced elevated levels of stress accompanied by symptoms of anxiety, depression, and sleep disturbances, particularly due to the demands of distance learning. Although there are studies on this subject, more evidence is needed to explore the role of the COVID-19 pandemic in Turkish teachers' anxiety and burnout. Consequently, the present study aimed to examine the mediating role of the fear of COVID-19 in the relationship between the anxiety experienced by teachers and the level of burnout in studies conducted on teachers during the pandemic process. A total of 262 (57.8% female) teachers from Turkey completed a questionnaire comprising psychometric instruments of the aforementioned variables. The path analysis indicated that fear of COVID-19 mediated the association between anxiety and personal success sub-dimension of burnout, but not emotional exhaustion and depersonalization. The findings of the present study indicate that anxious feelings may exacerbate burnout among teachers in Turkey and that the fear of COVID-19 may play a role on that aforementioned relationship. Consequently, health professionals and clinicians that aim to develop intervention and treatment strategies for Turkish teachers' anxiety and burnout levels should take the fear of COVID-19 into consideration.

Keywords: Anxiety, Burn Out, Fear Of COVID-19, Pandemic, Teachers

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1. Introduction

Mankind has faced many epidemics since its existence. Millions of people have lost their lives as a result of these epidemics. The world faced a new viral pandemic in late 2019 and early 2020. The virus causing this outbreak first emerged on December 31, 2019, when several "viral pneumonia" cases were reported in Wuhan, People's Republic of China. Following this report, the World Health Organization (WHO) identified this new virus and named it COVID-19, a coronavirus disease caused by a new coronavirus called SARS-CoV-2 (WHO, 2020). This virus was identified in a group of patients exhibiting symptoms of fever, cough, and shortness of breath affecting the respiratory tract on January 13, 2020. Following the diagnosis of the first COVID-19 case in Turkey on March 11, 2020, the World Health Organization (WHO) declared a pandemic (Ministry of Health, 2020).

COVID-19 is a particularly dangerous disease due to its challenging recognition, strong contagiousness among people, and rapid spread (Yılmaz et al., 2020; as cited in Saygi, 2021). Consequently, the global community has been on high alert, prompting the implementation of various preventive measures. In the fight against this swiftly transmissible virus, practices such as adhering to hygiene rules, using masks, and practicing social isolation to minimize interpersonal contact have become crucial (Deniz & Evcı Kiraz, 2020).

Many countries worldwide have implemented various practices and measures in the ongoing fight against COVID-19. Turkey, too, has undertaken numerous efforts to combat the virus. These protective measures aimed

at safeguarding public health include travel restrictions, curfews, quarantine processes, and limitations on educational activities within schools. It is crucial to acknowledge that, alongside meeting nutritional and health needs for the continuity of people's lives, the maintenance of education and training activities is essential for social progress (Yılmaz, 2020).

The COVID-19 pandemic stands as one of the most significant challenges confronting education and training systems worldwide. In response to this challenge, various practices have been implemented to ensure the continuity of education and training activities. Due to the pandemic, many school districts have adopted alternative teaching approaches, including socially distant classrooms, hybrid teaching, or 100% distance learning (Pressley, 2021). Additionally, numerous governments have mandated educational institutions to swiftly transition from face-to-face instruction to online and distance learning for a large proportion of their students (Daniel, 2020). These measures, taken in response to the pandemic, have precipitated rapid changes in various aspects of life, such as the professional and social spheres. Individuals have been required to adapt quickly to these changes.

The transition to distance education, one of the profound impacts of COVID-19 on the education sector in many countries, has required teachers to adapt quickly and indispensably (Allen et al., 2020; Carver & Shanks, 2021; Wang et al., 2021). Teachers now contend with new demands in terms of teaching and learning methods, professional expectations, and classroom environments. They have been compelled to acquire proficiency in new distance education pedagogy and platforms, emerging as the primary resource for parents navigating distance education (Pressley, 2021). The abruptness of these closures, uncertainty regarding their duration, and the relatively limited prior knowledge of distance learning have been reported to contribute to teachers' confusion and stress during this process. As a result, teachers are not immune to the psychological effects of the pandemic (Pressley, 2021).

Numerous studies on teachers reveal that since the early stages of the pandemic, they have experienced elevated levels of stress accompanied by symptoms of anxiety, depression, and sleep disturbances, particularly due to the demands of distance learning (Ng, 2007; Al Lily et al., 2020). Moreover, these new demands have compounded the already heavy workload of teachers. Consequently, these circumstances, coupled with the challenges of COVID-19, have contributed to heightened anxiety and burnout among teachers (Ferguson et al., 2012).

The present study

The COVID-19 pandemic has adversely affected human life globally in various ways, necessitating swift and compulsory adaptations to new norms. The measures implemented during this period have introduced numerous restrictions and uncertainties in interpersonal relations, business, and social life. Conversely, the constant influx of pandemic-related information through TV and social media is believed to contribute to an increase in individual anxiety levels. Studies conducted in this context suggest that employees across various professional groups may experience burnout (Güner & İl, 2020; Buyruk Akbaba & Bulut, 2021; Arpacioğlu et al., 2021).

Teachers are one of the professional groups that are expected to quickly adapt to the sudden changes and regulations that occur during the pandemic process. For this reason, the number of studies conducted especially on teachers has increased in this process. In the studies conducted with teachers, it has been reported that teachers have problems with increasing workload (Allen et al., 2020; Giovannella et al., 2020), low professional motivation (Purwanto et al., 2020), and time management (Giovannella et al., 2020). In addition, it is reported that the use of information and communication technologies used by teachers during the pandemic process causes tension, anxiety, exhaustion, and decreased professional satisfaction in individuals (Cuervo et al., 2018). When the literature is examined, it is seen that there are studies on the concepts of burnout and anxiety in teachers. However, it is thought that it is important to examine the mediating role of the fear of COVID-19 in the relationship between the anxiety experienced by teachers and the level of burnout in studies conducted on teachers during the pandemic process.

Based on this importance, it was aimed to examine the mediating role of fear of COVID-19 in investigating the relationship between teachers' anxiety and burnout levels during the pandemic process. In line with this main purpose, the following problems were created:

H1: Fear of COVID-19 has a mediating role in the effect of teachers' anxiety levels on their emotional exhaustion.

H2: Fear of COVID-19 has a mediating role in the effect of teachers' anxiety levels on their achievement status.

H3: The fear of COVID-19 has a mediating role in the effect of teachers' anxiety levels on their depersonalization.

Methods

Participants, procedure, and ethics

This study aimed to investigate whether the fear of COVID-19 plays a mediating role in the relationship between

anxiety and burnout in teachers. In the initial stage of this quantitative research, 301 individuals were contacted, and 35 questionnaires were excluded due to missing values in the scale sections. As the analyses commenced, an additional four questionnaires were removed from the study because their standardized Z scores exceeded 4, indicating outliers. The research was ultimately conducted with the remaining dataset, comprising a total of 262 participants. The ethics committee permission for the study was obtained with the decision numbered "04" taken at the meeting of Sakarya University Social and Human Sciences Ethics Committee dated 01.12.2021 and numbered 40. Data collection for the study was carried out online and face-to-face. Data were collected between 26.02.2022 and 13.05.2022 through convenience and snowball sampling.

Table 1. Sociodemographic characteristics of participants

		N	%
Gender	Woman	154	58,8
	Male	108	41,2
Marital Status	Single	43	16,5
	Married	218	83,5
Institution	Public	243	92,7
	Special	19	7,3
Working Time	10 years and less	66	25,2
	11-20 years	90	34,4
	21-30 years	84	32,1
	31 years and above	22	8,4
Covid-19 Status	Yes	108	41,2
	No	154	58,8
Chronic Disease	Yes	37	14,1
	No	225	85,9
Chronic Disease in Family Members	Yes	60	23,2
	No	199	76,8
Income Level by Household	Income Exceeds Expenses	50	19,1
	Income Equivalent to Expenses	147	56,1
	Income Less Expenses	65	24,8

Measures

As data collection tools; Integrated Anxiety Stress Scale developed by Ebadi (2020), the Maslach Burnout Scale adapted by Ergin (1992), the Fear of COVID-19 Scale adapted by Deniz et al. (2020), and the personal information form prepared by the researcher were used.

Integrated Anxiety Stress Scale (IASS): The IASS was developed by Ebadi (2020) to measure stress and anxiety levels in a single form. The final form of the scale consists of 33 items and responses are scored between 0 and 4. The score obtained from the scale varies between 0 and 132. The higher the score obtained from the scale, the higher the level of anxiety and stress. Responses to the statements marked as never, rarely, and sometimes are given 0 points; responses to the statements marked as usually and always are given 1 point. The total index ranging between 0-33 is formed by summing the indicators. When the total score range is divided into five parts, 0-7 is divided into very low, 8-14 into low, 15-21 into medium, 22-28 into high, and 29-33 into very high anxiety stress levels. Participants with moderate and high scores (between 15-28) are recommended to receive education and therapy, and participants with very high scores (29 and above) are recommended to receive support from a psychiatrist to eliminate mood disorders and affecting factors. The Cronbach alpha value of the scale was found to be = 0.967.

Maslach Burnout Scale (MBS): The original version of the Maslach Burnout Scale was developed by Christina Maslach and Susan E. Jackson in 1981. The Turkish version was adapted by Ergin (1992) and Cronbach's alpha internal consistency coefficient was measured as 0.93. Maslach Burnout Scale consists of 22 items. It consists of 3 sub-dimensions: Emotional Exhaustion (EE), Depersonalization (D), and Personal Accomplishment (PA). The scale is a five-point Likert-type scale with the lowest score being "Never=0" and the highest score being "Always=4". In the measurement of burnout, each sub-dimension is scored separately. Items in the Emotional exhaustion (EE) and Depersonalization (D) subscales should be scored in the same way, while items in the Personal accomplishment (PA) subscale should be reverse-scored and then summed. High scores on the DT and D subscales and low scores on the KB subscale indicate a high level of burnout.

COVID-19 Fear Scale: The adaptation study of the COVID-19 Fear Scale into Turkish was conducted by

Deniz et al. (2020). During the adaptation process, confirmation factor analysis, Item Response Theory, convergent validity, and reliability (Cronbach's α , McDonald's ω , Guttman's λ_6 , and composite reliability) analyses were conducted. In addition, the mediating role of psychological distress in the relationship between fear of COVID-19 and life satisfaction was tested. The unidimensionality of the 7-item scale was confirmed in a Turkish sample. Item Response Theory revealed that all the items were congruent and consistent with the model. The results showed that the Turkish version of the scale had satisfactory reliability coefficients. Fear of COVID-19 was found to be associated with psychological distress and life satisfaction. The results suggest that the Turkish version of the COVID-19 Fear Scale has strong psychometric properties.

Personal Information Form: The personal information form prepared by the researchers provided information about some sociodemographic characteristics of the participants such as age, gender, type of organization, and duration of employment.

Statistical analysis

A path analysis was conducted to investigate the direct and indirect relationships among the study variables. In the study, three sub-dimensions of the burnout scale (Emotional Exhaustion, Personal Accomplishment, and Depersonalization) were analyzed separately. Regression-based on the bootstrap method was used in the analysis. In the bootstrap technique, the 5000 resampling option was preferred. Model 4 was selected from Hayes models and Anxiety was determined as the prediction variable (X), Fear of Corona as the mediating variable (M), and Burnout as the outcome variable (Y).

Results

This section of the study presents the general characteristics of the participants and analyzes the mediating role of the fear of COVID-19 in the impact of anxiety on three different sub-dimensions of burnout.

Table 2. Regression analysis results for the mediation test of corona fear in the relationship between anxiety and emotional exhaustion (N = 262)

Forecast Variables		Outcome Variables				
		M (Fear of Covid-19)		Y (Emotional Exhaustion)		
		<i>b</i>	<i>S.H.</i>	<i>c'</i>	<i>b</i>	<i>S.H.</i>
X (Anxiety)	<i>a</i>	0,0883	0,0167		0,2278	0,0146
M (Fear of Covid-19)	-	-	-	<i>b</i>	-0,0385	0,0514
Fixed		11,9822	0,7720		2,8535	0,8882
		$R^2 = 0.0967$			$R^2 = 0.5028$	
		F= 27,8321			F= 130,9784	

Characteristics of participants

The findings related to the respondents' gender, marital status, the institution they work for, the duration of their employment, COVID-19 status, whether they or one of their family members have a chronic disease, and household income level are presented in Table 1. When analyzing the participants based on their sociodemographic characteristics, 58.8 percent were female, 41.2 percent were male, 16.5 percent were single, and the remaining participants were married. Of the 243 participants, 92.7 percent were public employees, while the rest worked for private organizations.

In terms of working years, 25.2 percent of the participants have been working for 10 years or less, 34.4 percent for 11-20 years, 32.1 percent for 21-30 years, and the remaining for 31 years or more. Additionally, 41.2 percent of the participants reported having Covid-19, 14.1 percent had a chronic disease, and 23.2 percent mentioned that a family member they live with has a chronic disease. Approximately twenty percent of the participants reported that their income exceeded their expenses, while more than half reported that their income equaled their expenses. The remaining participants stated that their income was less than their expenses. The ages of the participants ranged between 23 and 65, with an average age of 41.8.

Emotional Exhaustion

Regression analysis, employing the bootstrap method, was conducted to examine whether the fear of Covid-19 plays a mediating role in the relationship between teachers' anxiety levels and their emotional exhaustion, a sub-dimension of burnout. The findings are presented in Table 2. The mediation effect analysis, performed using the Bootstrap technique, revealed that the fear of Covid-19 did not mediate the relationship between anxiety and emotional exhaustion ($b = -0.0034$, 95% CI [-0.0134, 0.0062]). The Bootstrap confidence interval values for both lower and upper bounds encompass zero. In line with these results, the research hypothesis (H1: Fear of Covid-19 has a mediating role in the effect of teachers' anxiety levels on their emotional exhaustion) was not supported.

Table 3. Regression analysis results for the mediation test of corona fear in the relationship between anxiety and personal achievement (N = 262)

Forecast Variables		Outcome Variables				
		M (Fear of Covid-19)		Y (Personal Achievement)		
		<i>b</i>	<i>S.H.</i>	<i>c'</i>	<i>b</i>	<i>S.H.</i>
X (Anxiety)	<i>a</i>	0,0883	0,0167	<i>c'</i>	0,0524	0,0129
M (Fear of Covid-19)	-	-	-	<i>b</i>	-0,1221	0,0454
Fixed		11,9822	0,7720		10,0945	0,7851
		$R^2 = 0.0967$			$R^2 = 0.0674$	
		F= 27,8321			F= 9,3660	

Personal Success

Regression analysis, utilizing the bootstrap method, was conducted to examine whether the fear of Covid-19 plays a mediating role in the relationship between teachers' anxiety levels and their accomplishment, a sub-dimension of burnout. The results are presented in Table 3. According to the mediation effect analyses performed with the Bootstrap technique, fear of Covid-19 mediates the relationship between anxiety and personal accomplishment ($b = -0.0108$, 95% CI [-0.0226, -0.0021]). Bootstrap lower and upper confidence interval values do not include the zero value. In line with these results, the research hypothesis was supported (H2: Fear of Covid-19 has a mediating role in the effect of teachers' anxiety levels on their achievement).

Table 4. Regression analysis results for the mediation test of corona fear in the relationship between anxiety and depersonalization (N = 262)

Forecast Variables		Outcome Variables				
		M (Fear of Covid-19)		Y (Depersonalization)		
		<i>b</i>	<i>S.H.</i>	<i>c'</i>	<i>b</i>	<i>S.H.</i>
X (Anxiety)	<i>a</i>	0,0883	0,0167	<i>c'</i>	0,0961	0,0074
M (Fear of Covid-19)	-	-	-	<i>b</i>	-0,0250	0,0261
Fixed		11,9822	0,7720		0,0636	0,4514
		$R^2 = 0.0967$			$R^2 = 0.4076$	
		F= 27,8321			F=89,1159	

Depersonalization

Regression analysis, employing the bootstrap method, was conducted to assess whether the fear of Covid-19 plays a mediating role in the relationship between teachers' anxiety levels and depersonalization, a sub-dimension of burnout. The results are detailed in Table 4. According to the mediation effect analysis conducted with the Bootstrap technique, it was determined that the fear of Covid-19 did not mediate the relationship between anxiety and depersonalization ($b = -0.0022$, 95% CI [-0.0072, 0.0020]). Bootstrap lower and upper confidence interval values encompass the zero value. Consistent with these findings, the research hypothesis was not supported (H3: Fear of Covid-19 has a mediating role in the effect of teachers' anxiety levels on their depersonalization).

Discussion

In this study, we investigated the mediating role of the fear of COVID-19 in the relationship between teachers' anxiety and burnout levels, with the burnout variable examined across three sub-dimensions: emotional exhaustion, depersonalization, and personal accomplishment. The study results revealed that the fear of COVID-19 did not mediate the relationship between teachers' anxiety levels and emotional exhaustion. This finding contrasts with the results of a prior study by Güler and Yöndem (2021), which suggested that emotional exhaustion increases as coronavirus phobia intensifies among teachers.

The process of adopting new norms and adapting to changes in education and training can pose challenges for teachers, potentially contributing to their emotional burnout. Educators grapple with various difficulties brought about by the pandemic, including concerns about health, adjustments to working from home, additional domestic responsibilities, alongside various pedagogical stress factors. Moreover, the confinement of their living space to their homes (MacIntyre et al., 2020) adds to the complexity of their situation. In this context, the frequency and intensity of teachers' interactions with students during this period may lead to the excessive use of their emotional resources. Facing the challenges experienced by students can render teachers more susceptible to negative emotions (Preston & de Waal, 2002).

In addition, while teachers were engaged in intense interactions with their students during the pandemic, they were also actively communicating with parents and administrators. Consequently, the heightened workload experienced by teachers during this period may have contributed to emotional exhaustion. Factors such as increased workload (McCarthy et al., 2009; Garcia-Arroyo & Segovia, 2019; Baeriswyl et al., 2021), a lack of

administrative support, conflicts in values (Betoret, 2006; Skaalvik & Skaalvik, 2016), exposure to leadership attitudes inhibiting autonomy throughout the COVID-19 process (Collie, 2021), and the experience of time pressure (Maas et al., 2021) have been reported to be associated with emotional exhaustion.

In addition, when considering individual differences, it is believed that teachers' personality traits may contribute to emotional exhaustion. According to the Five Factor Personality Theory, teachers' personality traits are reportedly linked to various outcomes such as stress and emotional exhaustion (Kokkinos, 2007; Zysberg et al., 2017). Furthermore, it was found that the fear of COVID-19 did not act as a mediating factor in the relationship between anxiety levels and depersonalization in teachers. This research finding contradicts the results of a study that reported an increase in depersonalization as coronavirus phobia intensifies (Güler & Yöndem, 2021).

The transition to distance education and the limitations on social interactions during the pandemic may have posed challenges for teachers in accessing social support resources. It is noted that the implemented isolation measures, intended to curb the virus's spread, led to changes in social relationships, particularly close connections, potentially negatively impacting teachers' ability to effectively cope with crises (Jakubowski & Sitko-Dominik, 2021). Furthermore, while the isolation process can aid in stress management by offering opportunities for family members to spend more time together and provide mutual support (Stanley & Markman, 2020; Pietromonaco & Overall, 2021; Donato et al., 2020; Zhou & Yao, 2020), it might have also resulted in increased stress due to the challenges associated with distance education.

In particular, this situation may lead teachers to blur the boundaries between their family and professional lives and employ dysfunctional strategies to manage stress, potentially having negative psychological effects on them (Alzueta et al., 2021). In such circumstances, teachers may experience limited social support. Staying at home with their families may contribute to a deterioration in teachers' communication with their partners (Prime et al., 2020; Pietromonaco & Overall, 2021), resulting in a decrease in their psychological well-being (Donato et al., 2020). Therefore, during this process, teachers may have experienced depersonalization under the influence of various stressors.

It was found that the fear of COVID-19 played a mediating role in the relationship between teachers' anxiety levels and personal achievement. Our research finding aligns with the results of a study indicating that the level of personal accomplishment decreases as coronavirus phobia increases (Güler & Yöndem, 2021). Additionally, another study reported an increase in the general burnout level and a decrease in the level of personal accomplishment during the pandemic process (Pellerone, 2021). This is likely attributed to teachers losing the ability to manage behavior in physical proximity and experiencing uncertainty about managing behavior online due to distance (Pellerone, 2021).

Furthermore, considering that the skills conceptualized as personal success are linked to an individual's performance and success in both private and professional life, it has been asserted that the sense of weakness experienced in critical situations diminishes one's sense of personal success (Profetis Consulting Services, 2013 as cited in Raiko, Konstantopoulou, & Lavidas, 2021). The teaching profession, which shapes various professional groups and serves as a crucial role model in many aspects of individuals' lives, underscores the importance of addressing stressors that teachers encounter in their professional lives. Therefore, it is suggested that efforts be made to alleviate the stressors faced by teachers in their professional roles. Additionally, conducting various studies aimed at enhancing skills such as stress coping, crisis management, emotion regulation, and setting boundaries could prove beneficial in elevating teachers' levels of psychological well-being.

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