

Article

Exploring the Interrelationship between COVID-19 Phobia, Work–Family Conflict, Family–Work Conflict, and Life Satisfaction among School Administrators for Advancing Sustainable Management

Turgut Karakose ¹, Ramazan Yirci ² and Stamatios Papadakis ^{3,*}

¹ Department of Educational Sciences, Faculty of Education, Dumlupinar University, 43100 Kutahya, Turkey; tkarakose@yahoo.com

² Department of Educational Sciences, Faculty of Education, Sutcuimam University, 46050 Kahramanmaraş, Turkey; ryirci@gmail.com

³ Department of Preschool Education, University of Crete, 74100 Rethymnon, Greece

* Correspondence: stpapadakis@uoc.gr



Citation: Karakose, T.; Yirci, R.; Papadakis, S. Exploring the Interrelationship between COVID-19 Phobia, Work–Family Conflict, Family–Work Conflict, and Life Satisfaction among School Administrators for Advancing Sustainable Management. *Sustainability* **2021**, *13*, 8654. <https://doi.org/10.3390/su13158654>

Academic Editors: Kerstin Nilsson, Tove Midtsundstad, Peter Lundqvist, Joanne Crawford, Nygård Clas-Håkan and Jesús-Nicasio García-Sánchez

Received: 25 June 2021

Accepted: 27 July 2021

Published: 3 August 2021

Abstract: This study aims to investigate the relationships between the COVID-19 phobia experienced by school administrators and their work–family conflict, family–work conflict, and life satisfaction. This descriptive research, designed according to the relational survey model, was conducted with the participation of 356 school administrators. The study data were collected through online questionnaires, and then *t*-test, ANOVA, correlation analysis, and simple linear regression analysis were employed for the statistical analyses. The results revealed that female school administrators experienced greater levels of COVID-19 phobia than their male peers and that COVID-19 phobia is felt more intensely in the psychological and social sub-dimensions. However, female school administrators' life satisfaction levels were significantly higher than those of male school administrators. In the current study, it was determined that school administrators in the younger age group experienced greater levels of COVID-19 phobia and family–work/work–family conflict than their peers from other age groups. The results of this study revealed a positive and moderate relationship between school administrators' COVID-19 phobia and their levels of both work–family and family–work conflict. The findings of the study offer significant implications for policy makers in education, showing the importance of developing strategies that will reduce the effects of the pandemic for a more sustainable and efficient employee performance.

Keywords: COVID-19; coronavirus; COVID-19 phobia; school administrator; work–family conflict; family–work conflict; life satisfaction

Publisher's Note: MDPI stays neutral with regard to jurisdictional claims in published maps and institutional affiliations.



Copyright: © 2021 by the authors. Licensee MDPI, Basel, Switzerland. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license (<https://creativecommons.org/licenses/by/4.0/>).

1. Introduction

Coronavirus disease-2019 (COVID-19) is defined as an acute respiratory infection caused by SARS-CoV-2. This new viral disease, which has and continues to pose a severe threat to global health, is considered the third coronavirus outbreak following Severe Acute Respiratory Syndrome (SARS) and the Middle East Respiratory Syndrome (MERS) [1,2]. COVID-19 is known to be transmitted through the respiratory tract when someone is nearby or in contact with those infected with the virus [3,4]. The COVID-19 pandemic, which emerged in late 2019, quickly became a serious global health threat after its rapid spread worldwide following its initial detection in Wuhan, China [5–7]. On 11 March 2020, the World Health Organization declared COVID-19 to be a global pandemic, taking into account the spread rate of the virus, its severity in terms of human health impact, the number of countries affected, and the seemingly exponential increase in the number of cases [8–11].

In this extraordinary crisis environment caused by COVID-19, almost all sovereign national governments took strict measures to prevent the rapid spread of the virus and reduce the number of casualties in terms of infections and loss of life. The requirement to wear facemasks, hand-hygiene practices, travel restrictions, lockdowns and curfews, and social distancing and social isolation were among the measures widely introduced [12–14]. Both the emergency caused by the COVID-19 virus and the measures taken to contain it have completely changed people's regular routines in many countries. Billions of people have experienced various problems in their social and business lives following the initial outbreak of COVID-19 [6,15–17]. The helplessness experienced in preventing the pandemic has also caused many to experience fear, uncertainty, and anxiety. People began to worry about their health, the health of others and their loved ones, and the impact on their jobs and long-term careers. The dangerous and relatively uncontrolled spread of COVID-19 through a dynamic chain of events made it highly unpredictable in the short term, resulting in various consequences and impacts related directly to the pandemic [17,18]. Under these circumstances, it has become essential to reveal society's approach to the pandemic, to make plans and revise practices accordingly to cope with the crisis, and to both understand and take appropriate measures as to how individuals cope with a raft of anxieties and fears during such a global pandemic [19,20].

From the start of the COVID-19 pandemic, it was observed that human behaviors and habits shaped by hundreds of years of experience underwent radical changes in just a brief period. This situation, emerging as a result of these changes, has been called the "new normal." The effects of the COVID-19 pandemic, which is considered as being one of the most significant disasters humanity has experienced in recent history, were first examined in the context of human health, but it was later understood that the pandemic also triggered other socio-cultural, economic, and psychological effects too [15,21]. Many academic studies have shown that the COVID-19 pandemic has also resulted in a psychological impact dimension that cannot be neglected in addition to medical and economic crises. Decreased life satisfaction, irritability, disappointment, emotional discomfort, sadness, guilt, fatigue, boredom, insomnia, lack of concentration and indecision, detachment from others, and decreased work performance are stated as the most common psychological and behavioral reactions caused as a result of the COVID-19 pandemic [21,22]. Efforts to understand the medical aspect of COVID-19 and treat the disease have significantly increased scientific publication numbers in this field daily. In addition, research on the psychological effects of the pandemic on the human race has subsequently gained momentum.

As with many other countries, the national government of Turkey made the use of facemasks compulsory and implemented various measures such as social distancing and lockdowns in an attempt to control the increasing number of cases and deaths. However, these restrictions, which affect almost all individuals' daily lives, had naturally led to an increase in the levels of stress and anxiety disorders seen. The uncertainties brought about by the pandemic have caused many individuals to experience negative emotions such as anxiety and fear [16]. At the height of the COVID-19 pandemic, many employees were unexpectedly forced to work from home or adapt to flexible working hours and conditions [23]. With these sudden changes imposed on society due to COVID-19, the separation of work and personal life has become more ambiguous. Individuals who did not have suitable workspaces in their homes or offices had to instead suddenly create workspaces in the living room, kitchen, or bedroom where they lived. Many working parents worldwide tried to both take care of their children during prolonged school closures, while also attempting to work from home to maintain both their income and careers. As a result of these suddenly imposed changes, many employees' work efficiency and motivation decreased, and their mental health was, and continues to be in many cases, negatively affected by the increased stress from working under these arrangements [24].

Following the COVID-19 outbreak, the traditional classroom approach where face-to-face learning occurs was rapidly replaced by virtual classrooms [25]. In this new classroom setting, teachers were urgently asked to adapt to online methods of teaching [26]. During

this period, both students and teachers experienced significant levels of uncertainty about how and what to teach. The changes in teaching methods and the lack of established guidelines for these new teaching practices have further increased this uncertainty [27,28]. Educators have had to adapt to online teaching methods at all schooling levels and rapidly adapt and move teaching content and materials to the new online space to ensure that students can continue their learning during the pandemic. In addition, both teachers and students had to learn how to use the various forms of online software used in distance education. These situations have led to a significant additional workload for those working in the educational field at all levels [29].

As a part of the change in academic life caused by the COVID-19 pandemic, teachers have faced significant stress factors related to their jobs. The pandemic has caused an abrupt transition to distance learning, along with the necessity to adapt to home-based working conditions for many [30,31]. This situation has brought the psychological effects of the pandemic to the fore, in addition to being a medical and economic crisis for many educators. The reasons for the increased stress experienced by teachers during this process include the rapid changes seen right across the field of education during the shift to this “new normal,” inadequate training in the use of digital resources and equipment (during the transition to emergency remote teaching), and in most cases, a lack of suitable equipment for distance education [32]. However, online distance education is a more complex process and carries more meaning than simply creating, adapting, and uploading digital educational content. Whereas distance education is a learning process that provides greater responsibility, flexibility, and choice to learners [23], during the period of uncertainty brought about by the pandemic, it has been seen that the use of distance education as a critical tool has in some cases prevented the understanding of its true meaning and role in education.

Current Study

There is no doubt that the COVID-19 pandemic created a crisis of global proportions [33] and that this situation significantly affected the world of education, schools and other educational institutions, and school administrators and managers. In Karakose’s [34] and Mutch’s [35] studies, the importance of the schools’ role was emphasized due to their close relationship with families and suggested that this role became even more critical in such times of crisis. However, many negative situations such as the stress, anxiety, and fear experienced by teachers during the COVID-19 pandemic have also become a significant issue faced by school administrators. In addition, school administrators had to deal with changes to both regulations and operating procedures, which varied depending on the course of the virus in their area. They also had to cope with changes to their staff’s routines and working arrangements and the health impact of the pandemic on their staff, students, and the families of both. The imposed social distancing restrictions for staff and students, in addition to the expectations from students, teachers, and educational leaders during this period has resulted in increased responsibilities faced by school leaders on both a professional and personal level [36,37].

The COVID-19 pandemic, unlike other natural disasters such as floods or earthquakes, has created an unpredictable educational environment, emphasizing the importance of leadership. The number of studies focusing on leadership in school is starting to emerge as well. However, most COVID-19 studies on school leadership are theoretical or conceptual, trying to understand the effects of the pandemic. This research is a pioneering empirical study in terms of examining school leadership in the context of sustainable education management during the COVID-19 pandemic [38]. Given the potential of the COVID-19 waves and indeed the implications for education in the near future, it is important to develop recommendations for school leaders in these challenging times [30,39].

Since the onset of the COVID-19 pandemic, many school administrators, whose primary function is to manage the school and the efficiency of the teaching–learning process, spend much of their time influencing and interacting with others through a laptop computer or smartphone screen. The challenges during this global crisis, where school leadership

has indisputably changed, continue today. For school leaders, adopting a safe, principled, and collective management style has become even more critical during the pandemic to ensure that students can continue to advance toward a better future [40]. Considering their strategic positions and the roles of school administrators whose role includes both leadership and coordination roles in realizing their educational institution's goals, it is vital that how they are affected by the conditions brought about by the pandemic is investigated. In this context, various studies that have examined the psychological effects of COVID-19 on individuals are included in the relevant literature [41–46]. However, during these difficult and critical times, no research has yet been published that has examined the phobia experienced by school administrators during the COVID-19 period and the effect of such a phobia on their work–family/family–work conflict and life satisfaction. Therefore, the primary purpose of the current study is to investigate the relationship between the COVID-19 phobia experienced by school administrators and their work–family/family–work conflict and life satisfaction. In line with this general purpose, answers to the following research questions (RQs) were sought:

- RQ 1. What level are the scores of school administrators from the COVID-19 phobia Scale, Work–Family/Family–Work Conflict Scale, and Life Satisfaction Scale?
- RQ 2. Do the COVID-19 Phobia Scale, Work–Family/Family–Work Conflict Scale, and Life Satisfaction Scale scores of school administrators statistically and significantly differ according to gender, job type, professional experience, and age variables?
- RQ 3. Is there a statistically significant relationship between the school administrators' scores from the COVID-19 Phobia Scale, the Work–Family/Family–Work Conflict Scale, and the Life Satisfaction Scale?
- RQ 4. Are the school administrators' COVID-19 Phobia Scale scores a significant predictor of scores from the Work–Family/Family–Work Conflict Scale and Life Satisfaction Scale?

2. Materials and Methods

2.1. Participants and Procedures

This study is descriptive research patterned in the relational survey model [47,48]. This study questioned the relationship between school administrators' COVID-19 phobia and their work–family/family–work conflict and life satisfaction. The effects of COVID-19 phobia on work–family/family–work conflict and life satisfaction were tested in terms of various variables. The population sample, data collection tools, and data analysis of the research are presented as follows.

The study was conducted with 356 school administrators (school principals and deputy principals) working in the province of Kütahya, Turkey, during the 2020–2021 academic year. There are 165 public schools in total in Kütahya Province city center according to the official website of the educational directorate. The sample of the research comprises nearly 72% of the school administrators. The scales used in this research were reviewed and approved for their application received from the Republic of Turkey Kütahya Governorship and Provincial Directorate of National Education, with legal permission granted for the study to be performed on school administrators working at educational institutions (Legal Permit Certificate: 53490996-44-E.8011563). Before the commencement of the research, the necessary information was provided to the school administrators. As a result, their consent was obtained, confirming the voluntary nature of their participation in the research. The scales were then sent out to the participants electronically via Google Forms, which were subsequently completed, and their responses submitted via the internet.

When the demographic information of the participant school administrators was examined, it was seen that the majority of the school principals and deputy principals who participated in the research were male; however, contextually, it should be noted that the number of female school administrators in Turkey is also less than the number of male administrators. In addition, within the scope of the current study, it was seen that the percentage of participant school administrators aged 45 years old or younger was

67.4%, showing that the majority of the school administrators were reasonably young. These data are consistent with the findings in the TALIS 2018 report on this subject that the OECD conducted and reported an average age of school administrators in Turkey as being 43.1 years old [49]. Furthermore, according to the findings, it is understood that the number of participant school administrators who stated they had been infected with COVID-19 at some point was only one person.

2.2. Data Collection and Data Analysis

2.2.1. Measures

COVID-19 Phobia Scale (C19P-S)

In this study, three different scales were used as data collection tools. The first of these is the COVID-19 Phobia Scale (C19P-S) developed by Arpacı et al. [50], a 5-point, Likert-type self-assessment scale developed to measure the phobia that may develop a response to the coronavirus. The scale points are evaluated between 1 (strongly disagree) and 5 (strongly agree). The COVID-19 Phobia Scale (C19P-S) consists of the following four sub-dimensions: psychological, psychosomatic, social, and economic. The total score for the answers given to the items varies between 20 and 100 points, with the higher score indicating a higher level of COVID-19 phobia. According to Arpacı et al. [50], the reliability coefficient in the sub-dimensions of the scale varies between 0.85 and 0.90.

Work–Family Conflict and Family–Work Conflict Scale

Another measurement tool used in the study was the Work–Family Conflict and Family–Work Conflict Scale developed by Netemeyer et al. [51]. There are two subscales in the measurement tool that Efeoğlu [52] adapted to the Turkish language/context. These subscales consist of 10 judgment sentences that aim to determine the levels of work–family conflict and family–work conflict that arise from family life. Regarding the reliability analysis of the scales, Netemeyer et al. [51] calculated the reliability values for the scales of work–family conflict due to work–life and family–work conflict due to family life as 0.88 and 0.89, respectively. In the current study, the Cronbach Alpha value of the Work–Family Conflict Scale was recalculated, and it was found as 0.93, which shows that the scale used in study has a very high degree of reliability.

Life Satisfaction Scale

The Life Satisfaction Scale used in the current research was developed by Diener et al. [53]. The scale consisted of five items within a single factor and was adapted to the Turkish context by Dağlı and Baysal [54]. The Cronbach Alpha Coefficient's adaptation works show an internal consistency of the items forming the scale as being calculated as 0.88. The Cronbach Alpha value of the Family–Work Conflict Scale was recalculated, and it was found to be 0.93. This value shows that the scale used in the current study has a very high degree of reliability.

Additionally, the reliability coefficients and arithmetic mean values for the COVID-19 Phobia Scale (C19P-S) used in the current study were recalculated. Accordingly, the internal consistency coefficients of the sub-dimensions in the COVID-19 Phobia Scale (C19P-S) ranged from 0.83 to 0.89, which means that the scale has a very high degree of reliability. In addition, according to the arithmetic averages of the scores obtained from the scales, it was seen that the highest averages from the COVID-19 Phobia Scale (C19P-S) were collected in the psychological and social sub-dimensions. This result shows that the psychological and social impact of the COVID-19 pandemic on school administrators is greater than other dimensions.

2.2.2. Main Analyses

The analysis of the data was conducted using IBM's SPSS Version 23 software. The *t*-test, ANOVA, correlation analysis, and simple linear regression analyses performed on

the collected data were considered to be normal distributions, and the significance level was taken as $p < 0.05$ in the study.

3. Results

Before proceeding to the data analysis phase of the research, an examination was conducted to ascertain whether or not the collected data were distributed normally. For this, the skewness and kurtosis values of the scales were examined. According to George and Mallery [55], if the skewness and kurtosis values are between -2 and $+2$, it may be accepted that the collected data are distributed normally. Can [56], on the other hand, stated that the distribution might be considered normal if the skewness and kurtosis values are found to be between -1.96 and $+1.96$. Since the values calculated for the current study were between the specified value ranges, the distribution was accepted as normal and parametric tests were then employed. In addition, since the Q–Q Plot Test results of the data were close to the 45-degree angle, it was concluded that the distribution was normal, and it was decided that parametric tests would be used.

The t -test was applied to determine whether or not the scores obtained from the scales used in the current research differed according to the gender variable, and the results of this test are presented in Table 1.

Table 1. t -Test results by gender variable.

Scale	Subscales	Gender	N	\bar{x}	SD	t	p
COVID-19 Phobia	Psychological	Female	68	3.40	1.07	4.95	0.00
		Male	288	2.72	1.02		
	Psychosomatic	Female	68	2.04	1.07	4.89	0.00
		Male	288	1.51	0.74		
	Social	Female	68	2.91	1.16	3.58	0.00
		Male	288	2.40	1.04		
	Economic	Female	68	2.14	1.05	3.35	0.01
		Male	288	1.73	0.88		
	Whole scale	Female	68	2.69	0.98	4.82	0.00
		Male	288	2.13	0.82		
Work–Family/ Family–Work Conflict	Work–family conflict	Female	68	2.36	1.19	1.49	0.14
		Male	288	2.14	1.10		
	Family–work conflict	Female	68	1.70	1.04	−0.27	0.79
		Male	288	1.73	0.98		
Life Satisfaction	Life Satisfaction	Female	68	3.70	0.73	2.24	0.03
		Male	288	3.45	0.85		

As can be seen in Table 1, the scores obtained from the COVID-19 Phobia Scale differed significantly according to the gender variable. This differentiation was significant in favor of female school administrators in both the general scores and both sub-dimensions of the scale ($p < 0.05$). In other words, the female school administrators were found to have a greater level of COVID-19 phobia than the male school administrators. The two sub-dimensions with the highest COVID-19 phobia were the psychological and social sub-dimensions. Furthermore, as a result of the analysis, no statistically significant difference existed in terms of the gender variable in the level of work–family and family–work conflict ($p > 0.05$). In contrast, a significant difference was found in the participants' Life Satisfaction Scale scores in favor of the female school administrators ($p < 0.05$). According to these findings, the life satisfaction levels of the female school administrators can be said to have been significantly higher than that of the male school administrators.

The t -test was applied to determine whether or not the scores obtained from the scales differed according to the job title variable of the participant school administrators, and the test results are presented in Table 2.

Table 2. *t*-Test results by job title variable.

Scales	Subscales	Title	N	\bar{x}	SD	<i>t</i>	<i>p</i>
COVID-19 Phobia	Psychological	Principal	167	2.74	1.01	−1.75	0.07
		Deputy Principal	189	2.94	1.10		
	Psychosomatic	Principal	167	1.49	0.72	−2.52	0.00
		Deputy Principal	189	1.71	0.91		
	Social	Principal	167	2.38	0.97	−1.98	0.00
		Deputy Principal	189	2.60	1.17		
	Economic	Principal	167	1.76	0.85	−1.02	0.06
		Deputy Principal	189	1.86	0.99		
	Whole scale	Principal	167	2.14	0.78	−2.11	0.00
		Deputy Principal	189	2.33	0.95		
	Work–family conflict	Principal	167	2.15	1.08	1.49	0.14
Work–Family/ Family–Work Conflict		Deputy Principal	189	2.20	1.16		
	Family–work conflict	Principal	167	1.71	0.95	−0.27	0.79
		Deputy Principal	189	1.74	1.02		
Life Satisfaction	Life Satisfaction	Principal	167	3.43	0.87	2.24	0.03
		Deputy Principal	189	3.56	0.78		

In the *t*-test results performed according to the job title variable, as seen in Table 2, a significant difference was found in the general scores of the COVID-19 Phobia Scale in favor of the deputy principals according to the job title variable. Accordingly, the deputy principals were found to have a higher level of COVID-19 phobia compared to the school principals ($p > 0.05$). In addition, while there was no difference in terms of gender in the level of work–family and family–work conflict ($p > 0.05$), a statistically significant difference was found in favor of deputy principals in their Life Satisfaction Scale scores.

The *t*-test was applied to determine whether or not the seniority of the school administrators caused a difference in their scale scores, and the results are presented in Table 3.

Table 3. *t*-Test results by seniority variable.

Scales	Subscales	Seniority	N	\bar{x}	SD	<i>t</i>	<i>p</i>
COVID-19 Phobia	Psychological	≤10 years	167	3.11	1.09	2.75	0.01
		11+ years	189	2.76	1.04		
	Psychosomatic	≤10 years	167	1.81	0.92	2.69	0.01
		11+ years	189	1.54	0.80		
	Social	≤10 years	167	2.77	1.12	2.75	0.01
		11+ years	189	2.41	1.06		
	Economic	≤10 years	167	2.05	1.03	2.83	0.01
		11+ years	189	1.73	0.87		
	Whole scale	≤10 years	167	2.49	0.94	3.19	0.02
		11+ years	189	2.16	0.84		
	Work–family conflict	≤10 years	167	2.34	1.19	1.53	0.13
Work–Family/ Family–Work Conflict		11 + years	189	2.13	1.10		
	Family–work conflict	≤10 years	167	1.94	1.11	2.34	0.02
		11+ years	189	1.66	0.93		
Life Satisfaction	Life Satisfaction	≤10 years	167	3.43	0.88	−0.72	0.48
		11 + years	189	3.56	0.78		

As shown in Table 3, the scores obtained from the COVID-19 Phobia Scale differed statistically and significantly according to the variable of seniority. This differentiation was

significant in favor of school administrators with a seniority of 10 years or less, both in the overall scale scores and in each sub-dimension ($p < 0.05$). In other words, the school administrators who had worked for ten years or less experienced a greater level of COVID-19 phobia than school administrators who had worked for 11 years or more. In addition, the two sub-dimensions with the highest COVID-19 phobia were the psychological and social sub-dimensions.

An ANOVA analysis was performed to determine whether or not there was any difference in the scale scores according to the age variable, and the results are presented in Table 4.

Table 4. ANOVA analysis results by age variable.

Scale/Subscale	Age (Years)	N	\bar{x}	SD	F	p
COVID-19 Phobia	25–35	88	2.60	0.96	7.61	0.01
	36–45	152	2.18	0.89		
	46–55	88	2.01	0.67		
	56+	28	2.13	0.77		
	Total	356	2.24	0.88		
Work–family conflict	25–35	88	2.39	1.20	2.35	0.13
	36–45	152	2.13	1.09		
	46–55	88	2.18	1.13		
	56+	28	1.79	0.88		
	Total	356	2.18	1.12		
Family–work conflict	25–35	88	2.06	1.21	4.67	0.03
	36–45	152	1.62	0.92		
	46–55	88	1.60	0.80		
	56+	28	1.61	0.92		
	Total	356	1.73	0.99		
Life satisfaction	25–35	88	3.46	0.83	0.51	0.67
	36–45	152	3.53	0.83		
	46–55	88	3.45	0.86		
	56+	28	3.64	0.77		
	Total	356	3.50	0.83		

As shown in Table 4, the participants' scores from the COVID-19 Phobia Scale and the Work–Family/Family–Work Conflict Scale differ statistically significantly according to the age variable ($p < 0.05$). According to this, the highest levels of COVID-19 phobia were seen in school administrators aged 25–35 years old. Likewise, school administrators between the ages of 25–35 years old experienced higher family–work conflict than those from other age groups. In addition, the Least Significant Difference (LSD) test—one of the post hoc tests—was performed to determine between which age groups there was a difference, and the results are presented in Table 5. As a result of the analysis, no statistically significant difference was found between the Work–Family/Family–Work Conflict Scale and the Life Satisfaction Scale scores according to the age variable.

Table 5. Post Hoc LSD Test for the age variable.

Dependent Variable	(I) Age	(J) Age	Mean Difference (I–J)	SE	<i>p</i>
COVID-19 Phobia	25–35	36–45	0.41 *	0.11	0.00
		46–55	0.59 *	0.13	0.00
		56+	0.47 *	0.19	0.01
	36–45	25–35	−0.41 *	0.11	0.00
		46–55	0.17	0.11	0.14
		56+	0.05	0.18	0.77
	46–55	25–35	−0.59 *	0.13	0.00
		36–45	−0.17	0.11	0.14
		56+	−0.12	0.19	0.52
	56+	25–35	−0.47 *	0.19	0.01
		36–45	−0.05	0.18	0.77
		46–55	0.12	0.19	0.52
Work–Family/ Family–Work Conflict	25–35	36–45	0.44 *	0.13	0.00
		46–55	0.46 *	0.15	0.00
		56+	0.45 *	0.21	0.03
	36–45	25–35	−0.44 *	0.13	0.00
		46–55	0.02	0.13	0.87
		56+	0.01	0.20	0.96
	46–55	25–35	−0.46 *	0.15	0.00
		36–45	−0.02	0.13	0.87
		56+	−0.01	0.21	0.96
	56+	25–35	−0.45 *	0.21	0.03
		36–45	−0.01	0.20	0.96
		46–55	0.01	0.21	0.96

* $p < 0.05$.

As shown in Table 5, according to the results of the LSD test, the scores of the participants from the COVID-19 Phobia Scale and the Work–Family/Family–Work Conflict Scale were higher in favor of school administrators in the 25–35 years old age group. In addition, school administrators in the 25–35 years old age group experienced more significant levels of COVID-19 phobia and work–family/family–work conflict than their colleagues from other age groups.

In addition, Pearson Product Moment Correlation Analysis was performed to determine whether or not there was any relationship between the scale scores, and the results are presented in Table 6.

Table 6. Correlation values between scales.

	COVID-19	Work–Family Conflict	Family–Work Conflict
COVID-19	1		
Work–Family Conflict	0.574 **	1	
Family–Work Conflict	0.515 **	0.709 **	1
Life Satisfaction	−0.067	−0.172 **	−0.192 **

** $p < 0.01$.

When Table 6 is examined, it can be seen that a positive and moderate relationship was found to exist between the scores obtained from the COVID-19 Phobia Scale and the Work–Family Conflict Scale ($r = 0.574$, $p = 0.000$), and a positive relationship was found between the scores obtained from the COVID-19 Phobia Scale and the Family–Work Conflict Scale ($r = 0.515$, $p = 0.000$). In addition, while no relationship could be detected between the scores obtained from the Life Satisfaction Scale and the COVID-19 Phobia Scale, it was determined that there was a negative and low-level relationship found to

exist between the scores from the Life Satisfaction and the Work–Family/Family–Work Conflict Scale.

Before the analysis, histogram and PP plot graphs were examined by checking whether or not the dataset met the necessary conditions for regression analysis. In addition, multiple regression analysis was conducted to determine whether or not the participant school administrators' scores from the COVID-19 Phobia Scale were a significant predictor of their Work–Family/Family–Work Conflict Scale scores and their Life Satisfaction Scale scores. According to the results obtained, it was decided that regression analysis could be performed on the dataset. The results are presented in Figure 1.

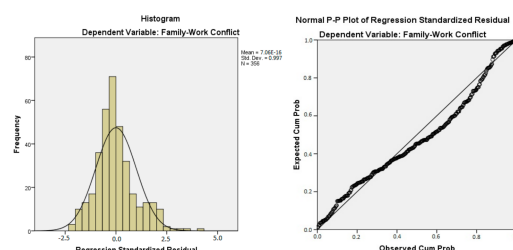


Figure 1. Histogram and P-P Plot graph portraying the dataset.

In this context, the results of multiple regression analysis regarding the predictor of work–family conflict by COVID-19 phobia scores are presented in Table 7.

Table 7. Multiple regression analysis: Prediction of Work–Family Conflict by COVID-19 phobia.

Variables	B	Se	β	<i>t</i>	<i>p</i>
Constant	1.199	0.250		4.788	0.000
COVID-19 Phobia	0.723	0.055	0.565	13.126	0.000
Life Satisfaction	−0.182	0.058	−0.134	−3.120	0.002

$R = 0.590$, $R^2 = 0.348$, $p = 0.000$, $F = 94.162$.

According to the data in Table 7, the regression model was statistically significant due to the analysis ($F = 94.162$, $p < 0.01$), and that 35% of the variance for work–family conflict could be explained by COVID-19 phobia and the life satisfaction variable. In the multiple regression model, when the life satisfaction variable was controlled, the effect of COVID-19 phobia on work–family conflict was found to be 0.723. In other words, an increase in COVID-19 phobia of one unit caused an increase in work–family conflict of 0.723 units. On the other hand, when COVID-19 phobia was controlled, the effect of the life satisfaction variable on work–family conflict was calculated as −0.182 units. In other words, an increase in life satisfaction of one unit created a decrease in work–family conflict of 0.182 units.

The multiple regression analysis results regarding the predictor of family–work conflict by COVID-19 phobia scores are presented in Table 8.

Table 8. Multiple regression analysis: Prediction of Family–Work Conflict by COVID-19 phobia.

Variables	B	Se	β	<i>t</i>	<i>p</i>
Constant	1.112	0.230		4.840	0.000
COVID-19 Phobia	0.569	0.051	0.505	11.232	0.000
Life Satisfaction	−0.188	0.054	−0.158	−3.521	0.000

$R = 0.539$, $R^2 = 0.290$, $p = 0.000$, $F = 72.229$.

As shown in Table 8, the regression model was statistically significant due to the analysis ($F = 72.229$, $p < 0.01$), and that 29% of the variance in family–work conflict was explained by COVID-19 phobia and the life satisfaction variable. In the multiple regression model, when the life satisfaction variable was controlled, the effect of fear of COVID-19

on family–work conflict was found to be 0.569. In other words, a one-unit increase in fear of COVID-19 caused an increase in family–work conflict of 0.569 units. On the other hand, when COVID-19 phobia was controlled, the effect of the life satisfaction variable on family–work conflict was found to be -0.158 units. In other words, an increase in life satisfaction of one unit created a decrease in family–work conflict of 0.158 units.

4. Discussion

The COVID-19 pandemic and its consequences were felt more broadly and severely in education, health, and the economy. It would be a misconception to consider the impact of the pandemic only in the context of education, because education is a concept closely related to many social fields such as economy, politics, and law. Education is also the driving force for sustainable development [57,58]. While education fulfilled its functions in the economy through schools [59], school administrators played a key role in fulfilling the function of schools [60–62]. For these reasons, research on COVID-19 and the work–life balance of school administrators can help increase school efficiency.

In the uncertainty and crisis environment created by the COVID-19 pandemic, additional responsibilities for school administrators have emerged, such as maintaining increased levels of communication with teachers and other education workers, albeit using online tools and actively motivating education workers. In addition, school administrators were tasked with planning and coordinating the emergency distance education offered at the school level. Collings et al. [63] stated that the COVID-19 pandemic had unprecedented and profound effects. The humanitarian crises created by these effects at the organizational level have mainly been devastating, complex, and full of uncertainty for the administrators of educational institutions at all levels. Under these circumstances, administrators have been central to managing the crisis and will ultimately play a key role in successfully overseeing their institution until some semblance of normality resumes. Hemphill and Marianno [64] stated that school administrators have to carefully review and manage the working conditions of their teachers, the environment of working with such uncertainty, and the learning needs of their students during the pandemic. These factors have made it essential to investigate the interaction of phobia, work–life balance, and life satisfaction experienced by school administrators during the COVID-19 pandemic.

The pandemic, which spread rapidly worldwide, soon became a global threat to public health, including the potential to cause widespread mental health issues in society. In addition, existing studies in the literature have indicated that the COVID-19 pandemic may lead to a dysfunctional anxiety disorder among the general public [65]. Therefore, identifying high-risk groups regarding the psychological symptoms caused by the COVID-19 pandemic is considered as just as important as recognizing the presence of these symptoms, as they are essential for both the evaluation and treatment of the broader effects of the virus [66]. It can be said that school administrators may also be included in the risk group in this context.

School administrators were chosen as the sample group for the current study due to the limited number of COVID-19 studies explicitly conducted with school administrators during the pandemic. School administrators, who have been primarily responsible for coordinating education and training activities via distance education throughout the prolonged lockdown period, have faced significant challenges in successfully navigating their institution's business without incurring significant problems. Trinidad [67] stated that schools had had no option but to continue to perform their duties in times of crisis. It is, therefore, considered necessary to document and theorize how school administrators' experiences and priorities in the field make sense during such social crises. As school administrators are the outward face of their schools, their role brings naturally high-stress levels to the job [68]. It has also been stated that the stress and tension experienced by school administrators increased considerably during the COVID-19 period [69]. Furthermore, living and working at home with their families alongside during the pandemic and the different

workload created by the need to offer emergency distance online education has required educators and school administrators to take extra care of their mental health [70].

The current research results have shown that school administrators' average scores from the COVID-19 Phobia Scale were generally found to be low. In other words, the COVID-19 phobia of school administrators in Turkey was shown to be below the general average. In Turkey, which has a robust healthcare system, most hospitals were quickly converted into pandemic hospitals [71], and there were no severe problems experienced in the treatment of COVID-19 patients thanks to the adequate bed capacity of the hospital wards and intensive care units. In addition, the local production of personal protective equipment (PPE) such as surgical gloves, medical and respiratory masks, medical gowns, and eye and face protectors in Turkey has been considered an advantage [72]. These factors, among others, may have been influential in the realization of low COVID-19 phobia levels among school administrators in the current study.

In addition, when the scores obtained from the sub-dimensions of the COVID-19 Phobia Scale were evaluated, it was seen that the highest averages were achieved in the psychological sub-dimension. This result shows that the psychological impact of the pandemic on school administrators is more extensive and intense than the other dimensions. Similarly, according to the results of a study in China by Tian et al. [73], it was reported that 70% of the participants had psychological symptoms caused by COVID-19. These findings are also consistent with the World Economic Forum data from 2020 [74], in which it was also stated that the quarantine process brought about in response to the COVID-19 pandemic psychologically affected those who were required to stay at home. During the so-called pandemic period, it has been claimed that some countries were slow and lacking when it came to addressing the psychological problems that some people experienced. According to Doshi et al. [75], the impact of the COVID-19 pandemic on psychological health was an essential factor in determining individuals' mental well-being. Research on this subject has revealed that the first psychological reaction of people to the life-threatening COVID-19 pandemic appears in the form of "fear". The COVID-19 pandemic has also caused many real-time challenges to emerge due to the panic and fear caused by the imposed limited mobility of the general public. For example, Belen [76] reported that fear of COVID-19 was positively correlated to anxiety and depression.

The current study results revealed that the gender variable caused a statistically significant difference in the participants' scores obtained from the COVID-19 Phobia Scale. Accordingly, the female Turkish school administrators were revealed to have greater levels of COVID-19 phobia when compared to their male colleagues. The other two sub-dimensions with the highest levels of COVID-19 phobia were psychological and social. However, Ahorsu et al. [77] concluded that COVID-19 phobia did not change according to gender or age variables. However, in a study conducted by Haktanir et al. [78], it was concluded that the fear of COVID-19 differed according to the gender variable and that females experienced higher levels of fear regarding COVID-19 than males did. In addition, a study conducted by Özdin and Bayrak Özdin [43] determined that the psychological effects of the COVID-19 pandemic on Turks differed according to the variables of gender, place of residence, age, and accompanying chronic illnesses. In this context, Walter and McGregor [79] argued that females might feel the psychological and socioeconomic effects of the COVID-19 pandemic more due to their traditional caregiver role within the family unit. According to Oleschuk [80], the pandemic has further increased gender inequalities. While there were evident career inequalities between males and females before the pandemic, responsibilities for the family were shown to have increased during the COVID-19 pandemic. Women's working skills/capacity was potentially limited by the interconnecting nature of remote working and childcare.

In the current research, no gender differences were found for either work–family conflict or family–work conflict. In addition to the home responsibilities undertaken by many women in Turkey, such as taking care of their children or elderly relatives, their business life responsibilities have required them to divide their days in two effectively. Therefore,

many female employees have had to double their efforts to achieve any work–family life balance [81]. Although the COVID-19 pandemic caused widespread disruption to work, family, and social life for many, according to the current study results, the work–life balance findings did not significantly differ by gender. Some studies have reported that work–life conflict decreased during the pandemic [82] (Schieman et al., 2021). Traditional variables such as gender or family responsibilities in work–life balance studies have shown no significant difference in explaining work–life conflict. Tasdelen-Karckay and Bakalim's [83] research found correlations among work–life conflict/family–work conflict and work–life balance, although these concepts did not differ by gender. Some studies have shown that regardless of gender, most workers, male or female, want to spend more time with their families [84].

In terms of the life satisfaction variable, the current study found the life satisfaction levels of female school administrators to be significantly higher than that of their male peers. This finding may be said to concur with that of Firat and Cula's [85] research on teachers. Accordingly, it may be emphasized that gender affects life satisfaction and that females' level of life satisfaction is higher than that of males. A similar conclusion was reached in the research conducted by Keser [86] and also by Fugl-Meyer et al. [87]. In a study by Yilmaz and Arslan [88], it was reported that female teachers had higher levels of life satisfaction, and they related this situation to the way that male and female children are raised in Turkish society. Intrinsically, there are complex expectations of male children in traditional Turkish society, such as representing the family, acting with independence, and being competitive, and together these increase their responsibilities and burdens and, in turn, decrease their life satisfaction. In a study by Matud et al. [89] on a Spanish sample, it was stated that adult males and females are socialized differently and that the pressure exerted on them to acquire and develop differentiated skills and roles still exists. Therefore, it is essential to recognize the importance of adhering to traditional gender roles in adults' life satisfaction. In another study from the United Kingdom, the results revealed that the average life satisfaction levels are similar for men and women, but the life satisfaction level of women is significantly in favor of women [90].

A significant difference was found in the current study between the participants' general scores from the COVID-19 Phobia Scale, which favored the deputy principals according to the job title variable. Accordingly, the deputy principals were shown to have a higher level of COVID-19 phobia than the school principals. This result is also related to the variable of seniority, as it was determined that the participants' COVID-19 phobia also differed significantly in the analysis according to the variable of seniority. In other words, it was concluded that the school principals and the deputy principals with a tenure of 10 years or less reportedly had a relatively higher level of COVID-19 phobia. According to the results of a North American study by Klaiber et al. [91], younger and middle-aged adults were found to be more concerned about the threat of COVID-19 than older adults in many areas of life, such as their emotional wellbeing, financial prospects, and business goals. During the initial weeks of the pandemic, older adults were observed as having better emotional well-being and were less likely to react to the stress of the situation compared to younger adults. This finding shows that individual responses to the pandemic may be affected by the age variable.

Another result obtained within the scope of the current research concerns the effect of the age variable on the participants' mean scores of COVID-19 phobia and work–family/family–work conflict. Accordingly, the school administrators' scores from the COVID-19 Phobia Scale and the Work–Family/Family–Work Conflict Scale differed statistically and significantly according to the age variable. According to the research results, the school administrators in the 25–35 years old age range were found to have higher levels of COVID-19 phobia than those in other age groups. This may be due to the school administrators between the ages of 25 and 35 years old being more self-informed about the adverse effects of COVID-19 from sources such as the internet, social media, and other forms of communication. Similarly, the school administrators in this age group may have

greater levels of COVID-19 phobia due to concerns for the welfare and health of their children or parents. Mertens et al. [92] reported that individuals might experience greater levels of anxiety and fear if they perceive a threat to their loved ones (e.g., their parents or grandparents). However, the current study showed that the younger participants experienced higher levels of COVID-19 phobia, which does not concur with the results of some other research, such as that of Lee et al. [93]. Likewise, in Lee et al.'s [93] study, it was determined that fear of COVID-19 did not differ according to the age variable. In another study, Doshi et al. [75] found that the younger participants especially had a higher fear of COVID-19. A similar result emerged in the study of Lee [94], with a high correlation found between young age and COVID-19 anxiety.

Furthermore, it was determined in the current study that the school administrators aged between 25 and 35 years old experienced higher work–family/family–work conflict than the school administrators from other age groups. This situation may have been caused by the younger school administrators having experienced more significant problems in their work–family/family–work life due to high levels of workplace responsibility at school and their inability to spare sufficient time for their families. However, this result was not found to be consistent with those of Şekeroğlu et al. [95] and Çağatay [96], in which no statistically significant difference was found between the variable of age and work–family/family–work conflict. In addition, Crompton and Lyonette [97] stated that it was considered normal for variables such as weekly working hours, gender, social class, age, and the number of children at home to affect work–life conflict levels significantly. However, these variables may also have a different effect in different countries. In other words, the social approach and country-specific cultural differences may cause differentiating results between countries.

Within the scope of the current research, it was determined that a positive and moderate relationship existed between school administrators' COVID-19 phobia and work–family conflict and family–work conflict levels. School administration is considered a stressful task that requires taking on responsibility by its very nature. The guidance and administrative support needed by teachers and students during the pandemic period were provided through distance education tools. School administrators even moved their administrative meetings to be hosted on digital platforms. Adding another threat to these responsibilities such as COVID-19, which is related to the health of individuals, may cause school administrators to experience increased levels of work–family conflict and family–work conflict. As stated by Sinclair et al. [98], millions of people have had to work from their kitchen tables, living room sofas, or other temporary home office spaces due to the pandemic. From this perspective, homes have sometimes become temporary offices and sometimes even school classrooms. This blurring of the boundaries between work and non-work can pave the way for conflicting work and family demands. In addition to the increasing work–family/family–work conflict, the inability to control such boundaries can also result in other problems besides COVID-19 phobia. In the current study, no relationship was found between the Life Satisfaction Scale scores and those from the COVID-19 Phobia Scale. However, Satıcı et al. [99] reported a negative relationship between fear of COVID-19 and life satisfaction.

Limitations and Future Research

Although the current research provided some significant findings regarding the relationship between COVID-19 phobia in school administrators and their work–family conflict, family–work conflict, and life satisfaction, it also has certain limitations. Among these are the compulsory use of online tools in the study's data collection and the inclusion of only school administrators in the study sample. In this context, in order to evaluate the psychosocial and other effects of COVID-19 phobia on individuals from a more comprehensive perspective, conducting future scientific studies on larger samples/study groups in which qualitative and quantitative forms of study are employed as mixed-method research may provide a better understanding of the subject.

5. Conclusions

The current research results revealed that female school administrators experienced the negative effects of COVID-19 phobia to a greater extent. Therefore, it is essential to develop specific strategies to minimize the negative effects of the pandemic on females working in the teaching profession. In this context, organizing virtual chat environments where female school administrators can benefit from each other's experiences in the fight against the COVID-19 pandemic may increase their psychological resilience.

The current study has shown that the negative impact of COVID-19 phobia on younger school administrators can be more intense and that during the COVID-19 pandemic, the younger aged school administrators may experience higher levels of work–family/family–work conflict. Therefore, the adaptation and preparatory stages of newly appointed school administrators could be better structured to address the realities of the pandemic period. For this purpose, experienced and inexperienced school administrators could be matched through e-mentoring in order that new school administrators can better adapt to their assigned duties and responsibilities.

The psychosocial effects of COVID-19 phobia were found within the scope of the current study to be greater on school administrators over other effects. As such, this necessitates the taking of correct and sufficient proactive measures, with online psychological counseling needing to be offered to help school administrators protect and improve their mental health during the pandemic period.

The research also offers some implications for policy makers in education. It is an undeniable fact that the COVID-19 epidemic has created a crisis environment, which affects schools and their sustainable management. This situation necessitates a re-examination of crisis plans for school management. If it is possible to act quickly during times of crisis because of the pandemic or other reasons, the negative effects can be minimized easier in a shorter time period. Creating more comprehensive epidemic, flood, earthquake, or other natural disaster scenarios for a sustainable and effective education management can help overcome the negative effects of the crisis more easily.

Author Contributions: Conceptualization, T.K.; methodology, T.K. and R.Y.; formal analysis, T.K., S.P., and R.Y.; data curation, T.K. and R.Y.; writing–original draft preparation, T.K., R.Y., and S.P.; writing–review and editing, T.K., S.P., and R.Y.; supervision, S.P. and T.K. All authors have read and agreed to the published version of the manuscript.

Funding: This research received no external funding.

Institutional Review Board Statement: The study was conducted according to the guidelines of the Declaration of Helsinki, and approved by the Institutional Review Board of Provincial Directorate of National Education, the Republic of Turkey Kütahya Governorship (Protocol number: 53490996-44-E.8011563).

Informed Consent Statement: Informed consent was obtained from all subjects involved in the study.

Data Availability Statement: The data presented in this study are available on request from the corresponding author.

Acknowledgments: The authors would like to thank the school administrators who participated into the research on volunteer basis during the data collection process. The authors also thank to the reviewers and the editors for their useful comments and suggestions.

Conflicts of Interest: The authors declare no conflict of interest.

References

1. Sharma, A.; Farouk, I.A.; Lal, S. COVID-19: A Review on the Novel Coronavirus Disease Evolution, Transmission, Detection, Control and Prevention. *Viruses* **2021**, *13*, 202. [[CrossRef](#)] [[PubMed](#)]
2. Tung, N.T.; Cheng, P.-C.; Chi, K.-H.; Hsiao, T.-C.; Jones, T.; Bérubé, K.; Ho, K.-F.; Chuang, H.-C. Particulate matter and SARS-CoV-2: A possible model of COVID-19 transmission. *Sci. Total. Environ.* **2021**, *750*, 141532. [[CrossRef](#)]
3. Heymann, D.L.; Shindo, N. COVID-19: What is next for public health? *Lancet* **2020**, *395*, 542–545. [[CrossRef](#)]
4. Leung, N.H.L. Transmissibility and transmission of respiratory viruses. *Nat. Rev. Genet.* **2021**, *19*, 528–545. [[CrossRef](#)]

5. Baloch, S.; Baloch, M.A.; Zheng, T.; Pei, X. The Coronavirus Disease 2019 (COVID-19) Pandemic. *Tohoku J. Exp. Med.* **2020**, *250*, 271–278. [\[CrossRef\]](#)
6. Castelnuevo, G.; de Giorgio, A.; Manzoni, G.M.; Treadway, D.C.; Mohiyeddini, C. Psychological, Behavioral, and Interpersonal Effects and Clinical Implications for Health Systems of the Coronavirus (COVID-19) Pandemic: A Call for Research. *Front. Psychol.* **2020**, *11*, 2146. [\[CrossRef\]](#) [\[PubMed\]](#)
7. Karakose, T.; Malkoc, N. Behavioral and interpersonal effects of the COVID-19 epidemic on frontline physicians working in Emergency Departments (EDs) and Intensive Care Units (ICUs). *Acta Med. Mediterr.* **2021**, *37*, 437–444. [\[CrossRef\]](#)
8. Ahmed, S.F.; Quadeer, A.A.; McKay, M.R. Preliminary Identification of Potential Vaccine Targets for the COVID-19 Coronavirus (SARS-CoV-2) Based on SARS-CoV Immunological Studies. *Viruses* **2020**, *12*, 254. [\[CrossRef\]](#) [\[PubMed\]](#)
9. Ahrens, K.F.; Neumann, R.J.; Kollmann, B.; Plichta, M.M.; Lieb, K.; Tüscher, O.; Reif, A. Differential impact of COVID-related lockdown on mental health in Germany. *World Psychiatry* **2021**, *20*, 140–141. [\[CrossRef\]](#)
10. Karakose, T.; Demirkol, M. Exploring the emerging COVID-19 research trends and current status in the field of education: A bibliometric analysis and knowledge mapping. *Educ. Process. Int. J.* **2021**, *10*, 7–27. [\[CrossRef\]](#)
11. Tengilimoğlu, D.; Zekioglu, A.; Tosun, N.; Işık, O.; Tengilimoğlu, O. Impacts of COVID-19 pandemic period on depression, anxiety and stress levels of the healthcare employees in Turkey. *Leg. Med.* **2021**, *48*, 101811. [\[CrossRef\]](#) [\[PubMed\]](#)
12. AlHeneidi, H.; Alsumait, L.; Alsumait, D.; Smith, A.P. Loneliness and Problematic Internet Use during COVID-19 Lock-Down. *Behav. Sci.* **2021**, *11*, 5. [\[CrossRef\]](#)
13. Özden, G.; Kiliç, S.P. The Effect of Social Isolation during COVID-19 Pandemic on Nutrition and Exercise Behaviors of Nursing Students. *Ecol. Food Nutr.* **2021**, 1–19. [\[CrossRef\]](#) [\[PubMed\]](#)
14. Shiva, M.; Molana, H. The Luxury of Lockdown. *Eur. J. Dev. Res.* **2021**, 1–21. [\[CrossRef\]](#)
15. Güney, O.I.; Sangün, L. How COVID-19 affects individuals' food consumption behaviour: A consumer survey on attitudes and habits in Turkey. *Br. Food J.* **2021**, *123*, 2307–2320. [\[CrossRef\]](#)
16. Pak, H.; Süsen, Y.; Nazlıgöl, M.D.; Griffiths, M. The Mediating Effects of Fear of COVID-19 and Depression on the Association Between Intolerance of Uncertainty and Emotional Eating During the COVID-19 Pandemic in Turkey. *Int. J. Ment. Health Addict.* **2021**, 1–15. [\[CrossRef\]](#)
17. Talidong, K.J.B.; Toquero, C.M.D. Philippine Teachers' Practices to Deal with Anxiety amid COVID-19. *J. Loss Trauma* **2020**, *25*, 573–579. [\[CrossRef\]](#)
18. Trzebiński, J.; Cabański, M.; Czarnecka, J.Z. Reaction to the COVID-19 Pandemic: The Influence of Meaning in Life, Life Satisfaction, and Assumptions on World Orderliness and Positivity. *J. Loss Trauma* **2020**, *25*, 544–557. [\[CrossRef\]](#)
19. Delgado, J.; Siow, S.; de Groot, J.; McLane, B.; Hedlin, M. Towards collective moral resilience: The potential of communities of practice during the COVID-19 pandemic and beyond. *J. Med. Ethic.* **2021**, *47*, 374–382. [\[CrossRef\]](#)
20. Karataş, Z.; Tagay, O. The relationships between resilience of the adults affected by the covid pandemic in Turkey and Covid-19 fear, meaning in life, life satisfaction, intolerance of uncertainty and hope. *Pers. Individ. Differ.* **2021**, *172*, 110592. [\[CrossRef\]](#) [\[PubMed\]](#)
21. Zacher, H.; Rudolph, C.W. Individual differences and changes in subjective wellbeing during the early stages of the COVID-19 pandemic. *Am. Psychol.* **2021**, *76*, 50–62. [\[CrossRef\]](#) [\[PubMed\]](#)
22. Rogowska, A.M.; Kuśnierz, C.; Bokszczanin, A. Examining Anxiety, Life Satisfaction, General Health, Stress and Coping Styles During COVID-19 Pandemic in Polish Sample of University Students. *Psychol. Res. Behav. Manag.* **2020**, *13*, 797–811. [\[CrossRef\]](#)
23. Bozkurt, A.; Sharma, R.C. Emergency remote teaching in a time of global crisis due to Corona Virus pandemic. *Asian J. Distance Educ.* **2020**, *15*, 1–6. [\[CrossRef\]](#)
24. Toniolo-Barrios, M.; Pitt, L. Mindfulness and the challenges of working from home in times of crisis. *Bus. Horiz.* **2021**, *64*, 189–197. [\[CrossRef\]](#) [\[PubMed\]](#)
25. Khlaif, Z.N.; Salha, S.; Affouneh, S.; Rashed, H.; ElKimishy, L.A. The Covid-19 epidemic: Teachers' responses to school closure in developing countries. *Technol. Pedagog. Educ.* **2020**, *30*, 95–109. [\[CrossRef\]](#)
26. König, J.; Jäger-Biela, D.J.; Glutsch, N. Adapting to online teaching during COVID-19 school closure: Teacher education and teacher competence effects among early career teachers in Germany. *Eur. J. Teach. Educ.* **2020**, *43*, 608–622. [\[CrossRef\]](#)
27. Khlaif, Z.N.; Salha, S. The Unanticipated Educational Challenges of Developing Countries in Covid-19 Crisis: A Brief Report. *Interdiscip. J. Virtual Learn. Med. Sci.* **2020**, *11*, 130–134. [\[CrossRef\]](#)
28. Ozamiz-Etxebarria, N.; Santxo, N.B.; Mondragon, N.I.; Santamaría, M.D. The Psychological State of Teachers During the COVID-19 Crisis: The Challenge of Returning to Face-to-Face Teaching. *Front. Psychol.* **2021**, *11*, 620718. [\[CrossRef\]](#)
29. Allen, J.; Rowan, L.; Singh, P. Teaching and teacher education in the time of COVID-19. *Asia Pac. J. Teach. Educ.* **2020**, *48*, 233–236. [\[CrossRef\]](#)
30. Collie, R.J. COVID-19 and Teachers' Somatic Burden, Stress, and Emotional Exhaustion: Examining the Role of Principal Leadership and Workplace Buoyancy. *AERA Open* **2021**, *7*, 2332858420986187. [\[CrossRef\]](#)
31. Karakose, T. The impact of the COVID-19 epidemic on higher education: Opportunities and implications for policy and practice. *Educ. Process. Int. J.* **2021**, *10*, 7–12. [\[CrossRef\]](#)
32. Dietrich, N.; Kentheswaran, K.; Ahmadi, A.; Teychené, J.; Bessière, Y.; Alfenore, S.; Laborie, S.; Bastoul, D.; Loubière, K.; Guigui, C.; et al. Attempts, Successes, and Failures of Distance Learning in the Time of COVID-19. *J. Chem. Educ.* **2020**, *97*, 2448–2457. [\[CrossRef\]](#)

33. Lee, J.J.; Haupt, J.P. Scientific globalism during a global crisis: Research collaboration and open access publications on COVID-19. *High. Educ.* **2020**, *81*, 949–966. [\[CrossRef\]](#)
34. Karakose, T. The perceptions of primary school teachers on principal cultural leadership behaviors. *Educ. Sci. Theory Pract.* **2008**, *8*, 569–579.
35. Mutch, C. How might research on schools' responses to earlier crises help us in the COVID-19 recovery process? *Set Res. Inf. Teach.* **2020**, *2*, 3–10. [\[CrossRef\]](#)
36. Harris, A.; Jones, M. COVID 19—School leadership in disruptive times. *Sch. Leadersh. Manag.* **2020**, *40*, 243–247. [\[CrossRef\]](#)
37. Karakose, T. Global Education in the Shadow of the Novel Coronavirus: Reflections on the Impact of COVID-19 Outbreak on Education Systems. *Educ. Process. Int. J.* **2020**, *9*, 201–204. [\[CrossRef\]](#)
38. McLeod, S.; Dulskey, S. Resilience, Reorientation, and Reinvention: School Leadership During the Early Months of the COVID-19 Pandemic. *Front. Educ.* **2021**, *6*, 70. [\[CrossRef\]](#)
39. Fernandez, A.A.; Shaw, G.P. Academic Leadership in a Time of Crisis: The Coronavirus and COVID-19. *J. Leadersh. Stud.* **2020**, *14*, 39–45. [\[CrossRef\]](#)
40. Harris, A. COVID-19—School leadership in crisis? *J. Prof. Cap. Community* **2020**, *5*, 321–326. [\[CrossRef\]](#)
41. Karakose, T.; Malkoc, N. Psychological impact of the COVID-19 pandemic on medical doctors in Turkey. *Soc. Behav. Pers. Int. J.* **2021**, *49*, 1–10. [\[CrossRef\]](#)
42. Karakose, T.; Yirci, R.; Basyigit, H.; Kucukcakil, A. Investigation of associations between the effects of COVID-19 fear on school administrators and nutrition and problematic eating behaviors. *Prog. Nutr.* **2021**, *23*, 2021187. [\[CrossRef\]](#)
43. Özdin, S.; Özdin, B. Levels and predictors of anxiety, depression and health anxiety during COVID-19 pandemic in Turkish society: The importance of gender. *Int. J. Soc. Psychiatry* **2020**, *66*, 504–511. [\[CrossRef\]](#)
44. Tanhan, A.; Yavuz, K.F.; Young, J.S.; Nalbant, A.; Arslan, G.; Yıldırım, M.; Ulusoy, S.; Genç, E.; Uğur, E.; Çiçek, I. A Proposed Framework Based on Literature Review of Online Contextual Mental Health Services to Enhance Wellbeing and Address Psychopathology during COVID-19. *Electron. J. Gen. Med.* **2020**, *17*, 254. [\[CrossRef\]](#)
45. Torales, J.; O'Higgins, M.; Castaldelli-Maia, J.M.; Ventriglio, A. The outbreak of COVID-19 coronavirus and its impact on global mental health. *Int. J. Soc. Psychiatry* **2020**, *66*, 317–320. [\[CrossRef\]](#) [\[PubMed\]](#)
46. Yıldırım, M.; Solmaz, F. COVID-19 burnout, COVID-19 stress and resilience: Initial psychometric properties of COVID-19 Burnout Scale. *Death Stud.* **2020**, 1–9.
47. Balci, A. *Research in Social Sciences*; Pegem: Ankara, Turkey, 2015.
48. Karasar, N. *Scientific Research Method: Concepts, Principles, Techniques*; Nobel Academic: Ankara, Turkey, 2020.
49. Karip, E. (Ed.) Talis 2018 Results and Evaluations on Turkey Türk Eğitim Derneği (TED). 2018. Available online: <https://tedmem.org/download/talis-2018-sonuclari-turkiye-uzerine-degerlendirmeler?wpdmdl=3085&refresh=5f0b3e8a824da1594572426> (accessed on 17 March 2021).
50. Arpacı, I.; Karataş, K.; Baloglu, M. The development and initial tests for the psychometric properties of the COVID-19 Phobia Scale (C19P-S). *Pers. Individ. Differ.* **2020**, *164*, 110108. [\[CrossRef\]](#)
51. Netemeyer, R.G.; Boles, J.S.; McMurrian, R. Development and validation of work-family conflict and family-work conflict scales. *J. Appl. Psychol.* **1996**, *81*, 400–410. [\[CrossRef\]](#)
52. Efeoğlu, İ.E. The Effects of Work-Family Conflict on Job Stress, Job Satisfaction and Organizational Commitment: A Study in the Pharmaceutical Industry. Ph.D. Thesis, Cukurova University, Adana, Turkey, 2006.
53. Diener, E.; Emmons, R.A.; Larsen, R.J.; Griffin, S. The Satisfaction with Life Scale. *J. Pers. Assess.* **1985**, *49*, 71–75. [\[CrossRef\]](#)
54. Dağlı, A.; Baysal, N. Adaptation of life satisfaction scale into Turkish: Validity and reliability study. *Elektron. Sos. Bilimler Derg.* **2016**, *15*, 1250–1262. [\[CrossRef\]](#)
55. George, D.; Mallery, M. *SPSS for Windows Step by Step: A Simple Guide and Reference*, 10th ed.; PEARSON: Boston, MA, USA, 2010.
56. Can, A. *Quantitative Data Analysis in the Scientific Research Process with SPSS*; Pegem: Ankara, Turkey, 2013.
57. Cebrián, G.; Junyent, M.; Mulà, I. Competencies in Education for Sustainable Development: Emerging Teaching and Research Developments. *Sustainability* **2020**, *12*, 579. [\[CrossRef\]](#)
58. Zhang, T.; Shaikh, Z.; Yumashev, A.; Chlăd, M. Applied Model of E-Learning in the Framework of Education for Sustainable Development. *Sustainability* **2020**, *12*, 6420. [\[CrossRef\]](#)
59. Suriyankietkaew, S.; Hallinger, P. Empirical research on education for sustainable development in sufficiency-based schools. *Eur. J. Sustain. Dev.* **2018**, *7*, 205. [\[CrossRef\]](#)
60. Coelli, M.; Green, D.A. Leadership effects: School principals and student outcomes. *Econ. Educ. Rev.* **2012**, *31*, 92–109. [\[CrossRef\]](#)
61. Karakose, T.; Kocabas, I. An investigation of ethical culture in educational organizations. *Afr. J. Bus. Manag.* **2009**, *3*, 504–510. [\[CrossRef\]](#)
62. Karakose, T.; Yirci, R.; Kocabas, I. A qualitative study of the novice principals' problems in the school management process and solutions. *Pak. J. Stat.* **2014**, *30*, 1365–1378.
63. Collings, D.G.; Nyberg, A.J.; Wright, P.M.; McMackin, J. Leading through paradox in a COVID-19 world: Human resources comes of age. *Hum. Resour. Manag. J.* **2021**. [\[CrossRef\]](#)
64. Hemphill, A.A.; Marianno, B.D. Teachers' Unions, Collective Bargaining, and the Response to COVID-19. *Educ. Financ. Policy* **2021**, *16*, 170–182. [\[CrossRef\]](#)

65. Feng, L.-S.; Dong, Z.-J.; Yan, R.-Y.; Wu, X.-Q.; Zhang, L.; Ma, J.; Zeng, Y. Psychological distress in the shadow of the COVID-19 pandemic: Preliminary development of an assessment scale. *Psychiatry Res.* **2020**, *291*, 113202. [CrossRef]
66. Evren, C.; Evren, B.; Dalbudak, E.; Topcu, M.; Kutlu, N. Measuring anxiety related to COVID-19: A Turkish validation study of the Coronavirus Anxiety Scale. *Death Stud.* **2020**, 1–7. [CrossRef]
67. Trinidad, J.E. Equity, engagement, and health: School organisational issues and priorities during COVID-19. *J. Educ. Adm. Hist.* **2020**, *53*, 67–80. [CrossRef]
68. Stone-Johnson, C.; Weiner, J. Principal professionalism in the time of COVID-19. *J. Prof. Cap. Community* **2020**, *5*, 367–374. [CrossRef]
69. Fotheringham, P.; Harriott, T.; Healy, G.; Areng, G.; McGill, R.; Wilson, E. Pressures and Influences on School Leaders as Policy Makers during COVID-19. Available online: <https://ssrn.com/abstract=3642919> (accessed on 27 July 2021).
70. Roman, T. Supporting the mental health of preservice teachers in Covid-19 through trauma-informed educational practices and adaptive formative assessment tools. *J. Technol. Teach. Educ.* **2020**, *28*, 473–481.
71. Öğütlü, H. Turkey's response to COVID-19 in terms of mental health. *Ir. J. Psychol. Med.* **2020**, *37*, 222–225. [CrossRef]
72. Demirbilek, Y.; Pehlivan Türk, G.; Özgüler, Z.; Meşe, E.A. COVID-19 outbreak control, example of ministry of health of Turkey. *Turk. J. Med. Sci.* **2020**, *50*, 489–494. [CrossRef]
73. Tian, F.; Li, H.; Tian, S.; Yang, J.; Shao, J.; Tian, C. Psychological symptoms of ordinary Chinese citizens based on SCL-90 during the level I emergency response to COVID-19. *Psychiatry Res.* **2020**, *288*, 112992. [CrossRef]
74. Van Hoof, E. Lockdown Is the World's Biggest Psychological Experiment—And We Will Pay the Price. Available online: <https://www.weforum.org/agenda/2020/04/this-is-the-psychological-side-of-the-COVID-19-pandemic-that-were-ignoring/> (accessed on 13 March 2021).
75. Doshi, D.; Karunakar, P.; Sukhabogi, J.R.; Prasanna, J.S.; Mahajan, S.V. Assessing Coronavirus Fear in Indian Population Using the Fear of COVID-19 Scale. *Int. J. Ment. Health Addict.* **2020**, 1–9. [CrossRef]
76. Belen, H. Fear of COVID-19 and Mental Health: The Role of Mindfulness in During Times of Crisis. *Int. J. Ment. Health Addict.* **2021**, 1–12. [CrossRef]
77. Ahorsu, D.K.; Lin, C.-Y.; Imani, V.; Saffari, M.; Griffiths, M.D.; Pakpour, A.H. The Fear of COVID-19 Scale: Development and Initial Validation. *Int. J. Ment. Health Addict.* **2020**, 1–9. [CrossRef] [PubMed]
78. Haktanir, A.; Seki, T.; Dilmaç, B. Adaptation and evaluation of Turkish version of the fear of COVID-19 Scale. *Death Stud.* **2020**, 1–9, in press. [CrossRef]
79. Walter, L.A.; McGregor, A.J. Sex- and Gender-specific Observations and Implications for COVID-19. *West. J. Emerg. Med.* **2020**, *21*, 507. [CrossRef]
80. Oleschuk, M. Gender Equity Considerations for Tenure and Promotion during COVID-19. *Can. Rev. Sociol.* **2020**, *57*, 502–515. [CrossRef]
81. Bacik, I.; Drew, E. Struggling with juggling: Gender and work/life balance in the legal professions. *Women's Stud. Int. Forum* **2006**, *29*, 136–146. [CrossRef]
82. Schieman, S.; Badawy, P.J.; Milkie, M.A.; Bierman, A. Work-Life Conflict during the COVID-19 Pandemic. *Socius Sociol. Res. Dyn. World* **2021**, *7*. [CrossRef]
83. Taşdelen-Karçkay, A.; Bakalm, O. The mediating effect of work-life balance on the relationship between work-family conflict and life satisfaction. *Aust. J. Career Dev.* **2017**, *26*, 3–13. [CrossRef]
84. Pasamar, S.; Johnston, K.; Tanwar, J. Anticipation of work-life conflict in higher education. *Empl. Relat.* **2020**, *42*, 777–797. [CrossRef]
85. Frat, Z.M.; Cula, S. The impacts of work-family conflict, family-work conflict and job satisfaction levels on teachers' overall life satisfaction. *Başkent Univ. J. Educ.* **2016**, *3*, 146–155.
86. Keser, A. The relationship between job satisfaction and life satisfaction: An application in the automotive industry. *Çalışma Toplum Derg.* **2005**, *4*, 77–96.
87. Fugl-Meyer, A.R.; Melin, R.; Fugl-Meyer, K.S. Life Satisfaction in 18- to 64-Year-Old Swedes: In Relation to Gender, Age, Partner and Immigrant Status. *J. Rehabil. Med.* **2002**, *34*, 239–246. [CrossRef]
88. Yılmaz, E.; Arslan, H. Examination of relationship between teachers' loneliness at workplace and their life satisfaction. *Pegem J. Educ. Instr.* **2013**, *3*, 59–69. [CrossRef]
89. Matud, M.P.; Bethencourt, J.M.; Ibanez, I. Relevance of gender roles in life satisfaction in adult people. *Pers. Individ. Differ.* **2014**, *70*, 206–211. [CrossRef]
90. Della Giusta, M.; Jewell, S.; Kambhampati, U.S. Gender and Life Satisfaction in the UK. *Fem. Econ.* **2011**, *17*, 1–34. [CrossRef]
91. Klaiber, P.; Wen, J.H.; DeLongis, A.; Sin, N.L. The Ups and Downs of Daily Life During COVID-19: Age Differences in Affect, Stress, and Positive Events. *J. Gerontol. Ser. B* **2020**, *76*, e30–e37. [CrossRef] [PubMed]
92. Mertens, G.; Gerritsen, L.; Duijndam, S.; Saleminck, E.; Engelhard, I.M. Fear of the coronavirus (COVID-19): Predictors in an online study conducted in March 2020. *J. Anxiety Disord.* **2020**, *74*, 102258. [CrossRef]
93. Lee, S.A.; Mathis, A.A.; Jobe, M.C.; Pappalardo, E.A. Clinically significant fear and anxiety of COVID-19: A psychometric examination of the Coronavirus Anxiety Scale. *Psychiatry Res.* **2020**, *290*, 113112. [CrossRef]
94. Lee, S.A. Coronavirus Anxiety Scale: A brief mental health screener for COVID-19 related anxiety. *Death Stud.* **2020**, *44*, 393–401. [CrossRef]

-
95. Şekeroğlu, B.; Şekeroğlu, M.Ö.; Altun, E. An Investigation on the Effects of Family-Work Conflict and Work-Family Conflict to Life Satisfaction According to Some Demographic Variables. *Akad. Sos. Araştırmalar Derg.* **2016**, *32*, 277–291.
 96. Çağatay, A. Determining the Effect of Work-Family Conflict on Employees' Work Performance: A Practice in Private Education Institutions in Ankara. Master's Thesis, Gazi University, Ankara, Turkey, 2012.
 97. Crompton, R.; Lyonette, C. Work-Life 'Balance' in Europe. *Acta Sociol.* **2006**, *49*, 379–393. [[CrossRef](#)]
 98. Sinclair, R.R.; Allen, T.; Barber, L.; Bergman, M.; Britt, T.; Butler, A.; Ford, M.; Hammer, L.; Kath, L.; Probst, T.; et al. Occupational Health Science in the Time of COVID-19: Now more than Ever. *Occup. Health Sci.* **2020**, *4*, 1–22. [[CrossRef](#)] [[PubMed](#)]
 99. Satıcı, B.; Gocet-Tekin, E.; Deniz, M.E.; Satıcı, S.A. Adaptation of the Fear of COVID-19 Scale: Its Association with Psychological Distress and Life Satisfaction in Turkey. *Int. J. Ment. Health Addict.* **2020**, 1–9. [[CrossRef](#)] [[PubMed](#)]