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## The Determination of the Fear of COVID-19 and Related Factors of Parents Applying to the Hospital for their Children

### Hastaneye Çocuğu için Başvuran Ebeveynlerin COVID-19 Korkusu ve İlişkili Faktörlerin Belirlenmesi

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#### ABSTRACT

**Objective:** The study was conducted to determine the fear of COVID-19 and related factors of parents applying to the hospital for their children.

**Methods:** The research is a descriptive and cross-sectional study. The study was conducted in a training and research hospital in Sakarya province of Türkiye between December 2020 and February 2021. The study sample consisted of a total of 291 parents, including 179 mothers and 112 fathers who applied to the hospital for their children, agreed to participate in the study, and filled out the data collection forms completely. The data were evaluated with the SPSS program, using percentages, averages, the t-test, and ANOVA.

**Results:** Of the parents participating in the study, 61.5% were mothers, and 38.5% were fathers. The mothers' mean score on the Fear of COVID-19 Scale was statistically significantly higher (20.93±6.51) compared to that of fathers (16.96±7.40) (p=0.000). The fear of COVID-19 of parents of children receiving inpatient treatment and care in the clinic was higher than the fear of COVID-19 of parents of children benefiting from outpatient services. A significant difference was identified between the total score averages of the Fear of COVID-19 Scale of mothers and fathers, respectively, and the fear of COVID-19 transmission from the hospital to their children and themselves, refraining from presenting to the hospital due to the pandemic (p<0.05).

**Conclusion:** It was revealed that the fear of COVID-19 was high in mothers and parents of children who received inpatient treatment in the clinic.

#### ÖZ

**Amaç:** Çalışma hastaneye çocuğu için başvuran ebeveynlerin COVID-19 korkusu ve ilişkili faktörlerin belirlenmesi amacıyla yapılmıştır.

**Yöntem:** Çalışma tanımlayıcı ve kesitsel tiptedir. Çalışma Türkiye'nin Sakarya ilinde bir eğitim ve araştırma hastanesinde Aralık 2020-Şubat 2021 tarihleri arasında yürütülmüştür. Çalışmanın örneklemini hastaneye çocuğu için başvuran, araştırmaya katılmayı kabul eden, veri toplama formlarını eksiksiz dolduran 179 anne, 112 baba olmak üzere toplam 291 ebeveyn oluşturdu. Veriler SPSS programı ile yüzde, ortalama, t-testi ve ANOVA kullanılarak değerlendirildi.

**Bulgular:** Çalışmaya katılan ebeveynlerin %61.5'i anne, %38.5'i babadır. Annelerin COVID-19 korku ölçek toplam puan ortalamasının (20.93± 6.51) babalara (16.96±7.40) göre istatistiksel olarak anlamlı derecede daha yüksek olduğu saptanmıştır (p=0.000). Klinikte yatarak tedavi ve bakım alan çocukların ebeveynlerinin COVID-19 korkusu poliklinik hizmetinden yararlanan çocukların ebeveynlerinin COVID-19 korkusundan fazladır. Anne ve babaların sırasıyla COVID-19 korkusu ölçeği toplam puan ortalamaları ile hastaneden çocuğuna ve kendisine COVID-19 bulaşma korkusu, pandemi nedeniyle hastaneye gelmekten çekinme durumu arasında anlamlı derecede bir farklılık bulunmuştur (p<0.05).

**Sonuç:** Annelerde ve klinikte çocuğu yatarak tedavi gören ebeveynlerde COVID-19 korkusunun yüksek olduğu belirlenmiştir.

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## INTRODUCTION

Coronavirus (COVID-19), the most significant public health crisis in the last few years, has affected the whole world (McElroy et al., 2020). This outbreak differs from other coronavirus outbreaks with its spread and mortality rates. The World Health Organization (WHO) reported 162,177,376 confirmed cases and 3,364,178 deaths worldwide on May 16, 2021. On May 16, 2022, there were a total of 522,783,196 confirmed cases and 6,276,210 deaths in the world (World Health Organization, 2021a). In Turkey, the first case was reported on March 11, 2020. Since the first day, various measures have been taken, expanding with the increased number of cases (Republic of Turkey Ministry of Health, 2021). According to the number of cases reported, Turkey has become the fifth country with the highest number of cases reported as of May 16, 2021 (World Health Organization, 2021a). In Turkey, as of 11 May 2021, a total of 1,264,164,553 vaccine doses have been administered, and the 2<sup>nd</sup> dose vaccine rate is 85.48% (Republic of Turkey Ministry of Health, 2021a).

Fear, which emerges as an unpleasant feeling with the perception of threatening stimuli, affects psychological health and physiological health. The current uncertainties and alarming situation of the COVID-19 outbreak can cause individuals to experience fear of infection transmission (Ozdin and Bayrak Ozdin, 2020; Spinelli, Lionetti, Pastore and Fasolo, 2020). As in other pandemics, it is normal and understandable that people experience fear in the context of the COVID-19 outbreak (Ozdin and Bayrak Ozdin, 2020; Sprang and Silman, 2020). However, while fear enables individuals to perceive risk and increase precautionary behaviors, on the one hand, it can prevent individuals from thinking clearly and rationally when it reaches an uncontrollable level, on the other hand (Şimsir, Koç, Zeki and Griffiths, 2021). The WHO has also expressed concern about the mental health and psychosocial consequences of the pandemic (World Health Organization, 2021b). Researchers from different disciplines report that in addition to the known symptoms of COVID-19, there may be an increase in symptoms and cases that will affect mental health, such as fear-related depression, suicide and self-harm that individuals cannot control in the face of uncertainty and other reasons brought about by this process (Li et al., 2020; Moukaddam and Shah, 2020; Yao, Chen and Xu, 2020; Şimsir et al., 2021). Considering these possible situations, it is important to urgently investigate the fear associated with COVID-19 and reveal the necessary interventions.

Children are the mirror of their parents. The feelings that parents experience, such as fear, anxiety, etc., reflect on their children and affect them adversely. Furthermore, the high fear of parents limits or weakens their potential caregiving abilities and parenting roles. In particular, the lack of support received by children with health problems from their parents at such a difficult time can adversely affect them and cause psychologically significant symptoms (Spinelli et al., 2020). Especially during these periods, children need more care and support from their parents. The literature review determined that most of the studies focused on the fears of parents of children with chronic diseases at risk (Senkalfa et al., 2020; Tural et al., 2020). As far as we know, no published study determines the fears and influencing factors of parents applying to the hospital for their children. This study aims to shed light on the factors affecting the fear of COVID-19 in parents applying to the hospital for their children. This needs to be addressed in detail and accurately to reveal the current and future interventions (Pakpour and Griffiths, 2020; Sprang and Silman, 2013). In this respect, pediatrics, psychiatry, and public health nurses play an important role in providing education and care in line with the needs by identifying parents with a high fear of COVID-19 in line with the family-centered care philosophy (Kiyat, Karaman, Ataşen and Kiyat, 2020). The study was conducted to determine the fear of COVID-19 and related factors of parents applying to the hospital for their children.

### Research questions

1. What are the COVID-19 fear levels of mothers applying to the hospital for their children?
2. What are the COVID-19 fear levels of fathers applying to the hospital for their children?
3. What are the factors affecting the COVID-19 fear levels of mothers applying to the hospital for their children?
4. What are the factors affecting the COVID-19 fear levels of fathers applying to the hospital for their children?
5. Is there a relationship between the COVID-19 fear levels of mothers and fathers applying to the hospital for their children?
6. Is there a relationship between the COVID-19 fear levels of parents who receive inpatient treatment and outpatient services for their children?

## METHODS

### Research Design

The research was carried out as a descriptive and cross-sectional study. The study was conducted in a training and research hospital in Sakarya province of Türkiye between December 2020 and February 2021. The hospital where the study was conducted is the only branch hospital within the scope of pediatric health and diseases in the province that provides tertiary health services. During the pandemic, service was provided by separating the clinics of pediatric patients diagnosed with or suspected of COVID-19 from the clinics of non-COVID pediatric patients. Visiting is restricted in inpatient clinics, and only female individuals (mostly mothers) stay with their

children as attendants. Each room in the clinic has two beds and a bathroom, a WC, a TV, and a refrigerator. Unless necessary, service was provided by hospitalizing one patient and his/her attendant in a room. The restriction of visiting patients in other rooms and not sharing belongings were explained during the patient admission. There are hand disinfectants in each room and corridors. In each room, meals are served in disposable food boxes. Only one parent is allowed to accompany a child in outpatient clinics. There are hand disinfectants in the waiting and examination areas. It is allowed to seat on the seats in the waiting areas according to the 1.5-meter distance rule. After each patient leaves the examination room, it is ventilated for 5-10 min.

### **Population and Sample**

The study population comprised parents applying to the outpatient and inpatient pediatric departments of a training and research hospital in Sakarya province for their children, while the sample consisted of a total of 291 parents, including 179 mothers and 112 fathers, who met the inclusion criteria. The G-power software (3.1.9.7) was used to conduct the power analysis. The power level was determined as 0.9968 according to the values of type 1 error: 0.05 and effect size= 0.567 to determine the difference in the FCV-19S measurements between the groups. Those who filled out the forms incompletely were excluded from the study. The inclusion criteria were as follows: a) Parents being aged between 19-64 years, b) Parents without any communication problems, c) Literate parents, d) Parents volunteering to participate in the study, e) COVID-19 being the reason for their child's hospitalization, f) Not applying to pediatric surgery units.

### **Data Collection**

The accompanying parents who applied to the outpatient and inpatient departments of the hospital for their children were determined, and the study's aim was explained to them. Written and verbal consent was obtained from parents by informing them that all data would be safely protected. The participants filled out the data collection forms. Whether the data collection forms were filled out completely or not was checked by the researcher, and they were taken back. Data collection took 10-15 min on average.

### **Data Collection Tools**

The research data were collected using the "Descriptive Information Form" prepared by the researchers and the "Fear of COVID-19 Scale (FCV-19S)."

**Descriptive Information Form:** The form includes 30 questions to determine the descriptive characteristics of parents and their children. Descriptive characteristics (18 questions) contain questions about the mother's age, education and employment status, etc. There are 12 questions about COVID-19.

**Fear of COVID-19 Scale (FCV-19S):** The FCV-19S was developed by Ahorsu et al. (2020) to complement clinical efforts to treat and prevent the spread of COVID-19 cases. The scale, whose validity and reliability studies in Turkey were performed by Satici and Atici (2020), is a one-dimensional, 7-item, 5-point Likert scale. The scale item scores range from 1 (strongly disagree) to 5 (strongly agree). The highest scale score is 35, and the lowest score is 7. While the high score indicates excessive fear of COVID-19, the low point indicates low fear. Cronbach's alpha internal consistency coefficient is .84 for the Turkish version of the scale. Cronbach's alpha of the scale is .88 for this sample group.

### **Data Analysis**

The data obtained were evaluated using the IBM Statistical Package for the Social Sciences (SPSS) Statistics 23 and IBM SPSS Analysis of Moment Structures (AMOS) 23 programs. Frequency distribution and descriptive statistics are given. The "significance test of the difference between the two means" (independent t-test) was used to examine the difference between categorical variables with two groups, while the "one-way analysis of variance" (ANOVA) was conducted if the number of groups was more than two. Cronbach's alpha value was used for the scale's reliability. A p-value < 0.05 was considered statistically significant.

### **Ethical Considerations**

Before the study, permission to use the scale was obtained via e-mail. The study was approved by applying to the Scientific Research Platform of the Ministry of Health (Confirmation code: 2020-11-06T14\_14\_05). Ethical approval was obtained from Sakarya University, Sakarya, Turkey (Decision number: 7152243/050.01.04/580 on 01 December 2020). Institutional permission was received from the hospital. Before starting the study, the participants were informed about the study. Verbal and written consent was acquired from the parents participating in the study.

## **RESULTS**

Of the parents participating in the study, 61.5% were mothers, 38.5% were fathers, and the mean age was 34.50±6.87 (min: 19, max: 52). The children's mean age was 5.63±5.27 (min: 1; max: 17) years. It was determined

that 67.6% of the mothers (n=121) received service from the clinic for their children, and 32.4% (n=58) received service from the outpatient clinic. All of the fathers accompanied their children in the outpatient clinic.

Table 1 contains some socio-demographic characteristics of the parents participating in the study. The relationship between some socio-demographic characteristics of mothers and fathers and the fear of COVID-19 is also examined in Table 1. While there was no significant difference between mothers' employment status, economic level, the number of living children, the presence of chronic disease and continuous drug use and the total score averages of the FCV-19S ( $p>0.05$ ), a statistically significant difference was identified between educational status and the sex of the child hospitalized/brought to the outpatient clinic ( $p<0.05$ ). The total score average obtained from the FCV-19S by mothers who were primary school graduates ( $23.35\pm 5.81$ ) was statistically significantly higher than mothers who were secondary school graduates ( $19.34\pm 5.58$ ). The total score average obtained from the FCV-19S by mothers of boys hospitalized/brought to the outpatient clinic ( $22.04\pm 6.60$ ) was higher than mothers of girls ( $19.78\pm 6.24$ ), and it was found to be statistically significant ( $t = -2.351, p = 0.020$ ).

As seen in Table 1, there was no significant difference between the total score averages of the FCV-19S and fathers' educational status, employment status, the number of living children, the presence of chronic disease, and continuous medication use ( $p>0.05$ ). A statistically significant relationship was revealed between the economic situation stated according to fathers' statements and the total score average of the FCV-19S ( $p<0.05$ ). The total score average obtained from the FCV-19S by fathers with income less than their expenses ( $21.80\pm 8.47$ ) was statistically significantly higher than that of fathers with income equal to their expenses ( $16.01\pm 6.99$ ) (Table 1).

**Table 1.** Examination of the Relationship Between Some Socio-Demographic Characteristics of Mothers and Fathers and the Fear of COVID-19 (n=291)

Variables	MOTHER			FATHER		
	n(%)	FCV-19S		n(%)	FCV-19S	
		Mean ± SD	Test statistics		Mean ± SD	Test statistics
<b>Educational status</b>						
Primary school graduates (1)	53 (29.6)	23.35±5.81	<b>F=3.842</b> <b>p=0.011</b> <b>1&gt; 2<sup>a</sup></b>	-	-	-
Secondary school graduates (2)	43 (24)	19.34±5.58		56 (50)	17.25±7.00	F=0.086 t=0.099
High school graduates (3)	45 (25.1)	20.04±7.63		38 (33.9)	16.73±8.16	
University graduates (4)	38 (21.1)	20.39±6.25		18 (16.1)	16.55±7.34	
<b>Employment status</b>						
Employed	40 (22.3)	20.72±7.57	t=-0.229	93 (83)	16.84±7.63	t=-0.361
Unemployed	139 (77.7)	20.99±6.20	p=0.819	19 (17)	17.52±6.32	p=0.718
<b>Economic status</b>						
Income is higher than my expenses (1)	22 (12.5)	21.81±7.08	F=0.306 p=0.737	18 (9.8)	17.81±6.98	<b>F=4.210</b> <b>p=0.017</b> <b>3&gt;2<sup>a</sup></b>
Income is equal to my expenses (2)	122 (68.2)	20.91±6.36		86 (76.8)	16.01±6.99	
Income is lower than my expenses (3)	35 (19.6)	20.42±6.77		15 (13.4)	21.80±8.47	
<b>Number of living children</b>						
1 child	53 (29.6)	21.56±6.32	F=0.421	33 (29.5)	18.27±6.90	F=2.647
2 children	55 (30.7)	20.90±7.35	p=0.657	41 (36.6)	14.87±7.37	p=0.075
3 and more children	71 (39.7)	20.47±5.98		38 (33.9)	18.07±7.54	
<b>Presence of chronic disease</b>						
Yes	22 (12.3)	21.72±7.47	t=0.610	10 (8.9)	18.70±3.80	t=0.775
No	157(87.7)	20.82±6.38	p=0.543	102 (91.1)	16.79±7.66	p=0.440
<b>Continuous medication use</b>						
Yes	21(11.7)	21.66±7.65	t=0.549	13 (11.6)	18.30±3.37	t=0.694
No	158(88.3)	20.83±6.36	p=0.548	99 (88.4)	16.78±7.77	p=0.489
<b>Sex of the child hospitalized/brought to the</b>						

<b>outpatient clinic</b>						
Female	88 (49.2)	19.78±6.24	<b>t=-2.351</b>	71 (63.4)	17.22±7.43	t=0.489
Male	91 (50.8)	22.04±6.60	<b>p=0.020</b>	41 (36.6)	16.51±7.44	p=0.626

Descriptive statistics were shown as mean ± standard deviation.

F: One-way ANOVA test, t: Independent sample t-test, <sup>a</sup>: Tukey's test

Note. FCV-19S: Fear of COVID-19 Scale

When the relationship between the parenting role of the study participants and the fear of COVID-19 was examined, it was found that mothers' total score average obtained from the FCV-19S (20.93±6.51) was statistically significantly higher than that of fathers (16.96±7.40) (t=4.795, p=0.000). The total score average obtained from the FCV-19S by parents of children receiving inpatient treatment and care in the clinic (21.75±6.69) was statistically significantly higher than that of parents of children benefiting from outpatient service (17.73±6.96) (t=4.926, p=0.000) (Table 2).

**Table 2.** Comparison of the Fear of COVID-19 According to the Parental Role and the Child's Status of Receiving Outpatient Service or Inpatient Treatment (n=291)

	<b>FCV-19S</b>		
	<b>n (%)</b>	<b>Mean ± SD</b>	<b>Test statistics</b>
<b>Parenting role</b>			
Mother	179 (61.5)	20.93± 6.51	t=4.795
Father	112(38.5)	16.96 ±7.40	<b>p=0.000</b>
<b>Type of hospital treatment and care</b>			
Inpatient treatment	121 (41.6)	21.75 ±6.69	t=4.926
Outpatient clinic service	170 (58.4)	17.73±6.96	<b>p=0.000</b>

Descriptive statistics were shown as mean ± standard deviation.

t: Independent sample t-test

Note. FCV-19S: Fear of COVID-19 Scale

Table 3 examines the relationship between the fear of COVID-19 in mothers and fathers and some variables. A significant difference was found between the total score averages obtained from the FCV-19S by mothers and fathers, respectively, and the fear of COVID-19 transmission from the hospital to the child (t=4.604, p=0.000; t=3.871, p=0.000), the fear of COVID-19 transmission from the hospital to themselves (t=5.982, p=0.000; t=5.645, p=0.000), and refraining from presenting to the hospital due to the pandemic (t=5.859 p=0.000; t=5.216, p=0.000). The FCV-19S total score of fathers receiving information/education about COVID-19 was higher than that of fathers who did not receive it, and it was statistically significant (t=-2.986, p=0.003).

There was no significant difference between the status of having an individual diagnosed with COVID-19 in the close environment, the presence of an individual with chronic disease at home, death due to COVID-19 in the close environment, the status of having COVID-19 disease, and the FCV-19S total score of mothers and fathers (p>0.05).

**Table 3.** Examination of the Relationship Between the Fear of COVID-19 in Mothers and Fathers and Some Variables (n=291)

<b>Variables</b>	<b>MOTHER</b>			<b>FATHER</b>		
	<b>n(%)</b>	<b>FCV-19S</b>		<b>n(%)</b>	<b>FCV-19S</b>	
		<b>Mean ± SD</b>	<b>Test statistics</b>		<b>Mean ± SD</b>	<b>Test statistics</b>
<b>Fear of COVID-19 transmission from the hospital to the child</b>						
Yes	139 (77.7)	22.07±6.48	<b>t=4.604</b>	56 (50)	19.51±7.23	<b>t=3.871</b>
No	40 (22.3)	16.97±4.90	<b>p=0.000</b>	56 (50)	14.41±6.71	<b>p=0.000</b>
<b>The presence of an individual diagnosed with COVID-19 in her/his close environment</b>						
Yes	90 (50.3)	20.70±6.37	t=-0.480	62 (55.4)	16.19±7.13	t=-1.229
No	89 (49.7)	21.16±6.66	p=0.632	50 (44.6)	17.92 ±7.70	p=0.222
<b>Presence of an individual with chronic disease at home</b>						

Yes	58 (32.4)	22.00±6.65	t=1.524	30 (26.8)	16.56±5.06	t=-0.342
No	121 (67.6)	20.42±6.40	p=0.129	82 (73.2)	17.10 ±8.12	p=0.733
<b>Death due to COVID-19 in the close environment</b>						
Yes	45 (25.1)	21.42±7.26	t=0.582	19 (17)	17.36±6.89	t=-0.260
No	134 (74.9)	20.76±6.26	p=0.562	93 (83)	16.88±7.54	p=0.795
<b>Receiving information/education about COVID-19</b>						
Yes	97 (54.2)	20.88±6.68	t=-0.103	70 (62.5)	15.40±6.64	<b>t=-2.986</b>
No	82 (45.8)	20.98±6.33	p=0.918	42 (37.5)	19.57±7.95	<b>p=0.003</b>
<b>Condition of having COVID-19 disease</b>						
Yes	21 (11.7)	19.14±6.24	t=-1.344	23(20.5)	14.91±4.61	t=-1.498
No	158 (88.3)	21.17±6.52	p=0.181	89 (79.5)	17.49±7.90	p=0.137
<b>Fear of COVID-19 transmission from the hospital to themselves</b>						
Yes	155 (86.6)	21.98±6.17	<b>t=5.982</b>	72 (55.4)	19.56±7.03	<b>t=5.645</b>
No	24(13.4)	14.16±4.21	<b>p=0.000</b>	40 (44.6)	12.27±5.57	<b>p=0.000</b>
<b>Refraining from presenting to the hospital due to the pandemic</b>						
Yes	145 (81)	22.20±6.20	<b>t=5.859</b>	61 (54.5)	19.96±7.35	<b>t=5.216</b>
No	34 (19)	15.52±4.84	<b>p=0.000</b>	51 (45.5)	13.37±5.72	<b>p=0.000</b>

Descriptive statistics were shown as mean ± standard deviation.

t: Independent sample t-test

Note. FCV-19S: Fear of COVID-19 Scale

## DISCUSSION

The COVID-19 outbreak is a completely new and unexpected situation that has emerged since previous outbreaks, deeply affecting many countries worldwide. After the rapid spread of the outbreak, the number of patients with the disease and mortality rates continue to increase rapidly in Turkey (Republic of Turkey Ministry of Health, 2021b). This increases the fears of individuals of COVID-19 infection. The new and growing literature draws attention to parents' fear of COVID-19 and influencing factors. In this respect, the most commonly used psychometric scale evaluating the fear of COVID-19 is the FCV-19S developed by Ahorsu et al. (2020). This section focused on the fears of parents applying to the hospital for their children determined by the FCV-19S and the influencing factors and discussed them in line with the literature.

Fear is a psychological aspect of the COVID-19 outbreak (Pakpour and Griffiths, 2020). The current uncertainties and alarming situation of this outbreak may cause parents to experience fear of the infection transmission to both themselves and their children (Spinelli et al., 2020). It was determined that the total score average obtained by mothers from the FCV-19S was statistically significantly higher than that of fathers, which is one of the remarkable and important findings of the study. There is no study comparing mothers' and fathers' fear of COVID-19. A study from Turkey revealed that anxiety and fear were the feelings most intensively experienced by parents of children in the 0-2 age range during the pandemic (Demirtaş and Koçak, 2020). Other studies also reported that the fear of COVID-19 was significantly higher in women than in men, and they were more sensitive in terms of resilience (Bakioğlu, Korkmaz and Ercan, 2020; Broche-Pérez, Fernández-Fleites, Jiménez-Puig, Fernández-Castillo, Rodríguez-Martin, 2020; Chi et al., 2021; Gencer, 2020; Wang et al., 2020; Yıldırım, Geçer and Akgül, 2021). Furthermore, in their study, Liu et al. (2020) identified the female gender as the strongest predictor of post-pandemic trauma stress disorder symptoms. The higher fear of COVID-19 in mothers than in fathers in our study may be associated with physical and emotional differences due to the gender factor, the prolonged hospital stay of the great majority of the mothers in the sample group (67.6%) due to the hospitalization of their children in the clinic, and the higher parenting burden in meeting the care needs of their children. It is emphasized that it is urgent to adopt the gender lens in order to examine the effects of the outbreak on the mother, child, and family since the population of women with maternal roles constitutes a large proportion in the world and Turkey (Gausman and Langer, 2020).

Another striking and expected result of the study is that the fears of parents of children hospitalized in the clinic are significantly higher than parents of children brought to the outpatient clinic. Yuan et al. (2020) stated that parents of children hospitalized in the epidemic hospital had more serious mental health problems and anxiety and depression were more pronounced in them compared to parents of children hospitalized in the non-epidemic

hospital. Due to their developmental characteristics, children are curious about life and active. If parents, doctors, and nurses do not pay sufficient attention during hospitalization, children can randomly touch various substances and become infected with COVID-19. Hence, parents of children hospitalized during the COVID-19 outbreak face extensive pressure and anxiety (Yuan et al., 2020). The higher fear of COVID-19 among parents of children hospitalized in the clinic can be associated with the high risk of the virus transmission in the hospital and the longer hospital stay.

A significant relationship was found between the education status of mothers and the fear of COVID-19. In the present study, the fear of COVID-19 among mothers who were primary school graduates was higher than among mothers with other education levels. Similar to the result of the study, studies conducted with different sample groups (general population, students, healthcare personnel, etc.) also stated that the fear of COVID-19 decreased as the educational status of women increased (Doshi, Karunakar, Sukhabogi, Prasanna and Mahajan, 2020; Yıldırım et al., 2021). On the contrary, Bakioğlu et al. (2020), Gencer (2020), and Haktanır, Seki, and Dilmaç (2020) reported that the fear of coronavirus experienced by individuals with different education levels was similar. In our study, it can be explained by the fact that low educational status can significantly affect how mothers comprehend the infection and that mothers with high educational status have more knowledge about COVID-19 and access information more easily.

In the literature, it is stated that the pandemic increases unemployment rates and temporary loss of income and reflects adversely on the economy of individuals (McKibbin and Fernando, 2020). Income less than expenditures is an important and negative determinant of fathers' fear of COVID-19. This can be explained by the fact that approximately one-fifth (17%) of fathers in the sample group were unemployed and had difficulty accessing healthcare opportunities due to their limited financial and social resources.

No significant difference was revealed between mothers' and fathers' fear of coronavirus according to the presence or absence of chronic disease ( $p>0.05$ ). However, when the mean scores were examined, it was observed that mothers and fathers with a chronic disease experienced more fear of coronavirus than those who did not have a chronic disease. The current study results support the result of our study (Bakioğlu et al., 2020; Gencer, 2020). Additionally, a study conducted in Turkish society found that accompanying chronic disease was a risk factor for health and hospital anxiety (Ozdin and Bayrak Ozdin, 2020). Considering that parents with a chronic illness have a higher risk of hospitalization and/or death from COVID-19, as stated in the literature (Jordan, Adab and Cheng, 2020), it is not surprising that they experience more fear of contracting coronavirus infection. The fear of COVID-19 of mothers with a boy is significantly higher than those with a girl. Fathers who have daughters experience more fear of COVID-19. This may be associated with parents having a different attitude toward their children's sex. In some cultures, the infant's sex is a factor that affects attachment. Studies have reported that attachment is stronger between sons and mothers, daughters and fathers (Abuhammad, 2020). In this context, the high fear of parents toward opposite-sex infants may be related to attachment.

It has been reported that the rates of applying to pediatric units and hospitalization rates have decreased during the pandemic. This significant decrease may be due to low rates of acute infection because of following social distancing rules during the quarantine process and parents' silence against the risk of exposure to COVID-19 infection in the healthcare setting (Liguoro et al., 2021). Ahorsu et al. (2020) indicated a positive relationship between individuals' fear of COVID-19 and the perceived sense of vulnerability, hospital anxiety, and depression (Ahorsu et al., 2020). Similar to the literature, our study determined that the fear of COVID-19 transmission from the hospital to the child and themselves and refraining from presenting to the hospital due to the pandemic significantly increased the fear of COVID-19 in mothers and fathers ( $p<0.05$ ). In the time interval when the data were collected, within the scope of combating the virus in the country, face-to-face education interruption, time restrictions for going outdoors on weekdays, and lockdowns on weekends were continued. Depending on the limitations specified in the study, parents' thought that practices on measures of first priority are interrupted during hospital visits can be related to the fact that hospitals are perceived as high-risk places for the transmission of COVID-19 and they receive services from a complex, densely populated hospital.

#### **Limitations**

The study has some limitations. This is a cross-sectional study conducted in a single institution (hospital). Therefore, the causal relationships between parenting roles and the fear of COVID-19 cannot be generalized to all parents. Another limitation of the study is that fathers were mostly observed as attendants in pediatric outpatient clinics, and only mothers were attendants of their children in clinics. The findings obtained from the study can be generalized to this group and the time of data collection.

#### **CONCLUSION**

This study determined that mothers' fear of COVID-19 was significantly higher than that of fathers. The fear of COVID-19 among parents of children receiving inpatient treatment and care in the clinic is more than that of parents of children benefitting from the outpatient service. The low education level of mothers and the low economic level of fathers are important indicators in increasing the fear of COVID-19. The other factors affecting

the fear of COVID-19 include the fear of COVID-19 transmission from the hospital to the child and themselves and refraining from presenting to the hospital due to the pandemic.

It will be beneficial to evaluate parents' fear of COVID-19 and the influencing factors, identify risky parents and provide support in line with their needs. This is one of the most important criteria for fighting the pandemic and for society to adapt to life again after the pandemic.

Future studies may be important for determining the fears of children and parents applying to the hospital together, the deep understanding of risk factors, and enhancing the well-being of parents and children in this troublesome and critical period.

#### Author Contributions

Concept and design: D.M., O.T., N.C. Data collection: O.T. Data analysis and interpretation: D.M., O.T., N.C. Writing manuscript: D.M., O.T. Critical review: D.M., O.T., N.C

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