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ORIGINAL ARTICLE

Determination of Depression, Anxiety, Stress and Coronavirus Anxiety Levels of Parents Waiting for PCR Test Results

PCR Test Sonucu Bekleyen Ebeveynlerin Depresyon, Anksiyete, Stres ve Koronavirüs Kaygı Düzeylerinin Belirlenmesi

[1]Esra Güney, [1]Mevhibe Çoban

[1]İnönü University, Department of Midwifery, Malatya, Türkiye.

Correspondence

Esra Güney, Department of Midwifery, Faculty of Health Sciences, Inonu University, 44280 Malatya, Turkey.

E-Mail: esra.guney@inonu.edu.tr

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ABSTRACT

Aim: This study aimed to determine the depression, anxiety, stress and coronavirus anxiety levels of parents waiting for PCR test results.
Methods: The cross-sectional study was conducted between April-October 2021. The sample of the study consisted of 372 parents determined by power analysis. Data were collected from parents awaiting their children's PCR test results in the pediatric COVID service of the Training and Research Hospital in a province in the Eastern Anatolia Region. Data were collected using a personal information form, Depression, Anxiety, Stress Scales (DASS-21) and Coronavirus Anxiety Scale (CAS). The results were evaluated at $p<0.05$ significance level.
Results: According to the study, it was determined that parents with had ≥3 children, who were ≥36 years old, married for ≥11 years, educated at high school and below had higher levels of depression, anxiety, stress and coronavirus anxiety. It was determined that the level of anxiety experienced by the parents was 2.16±4.39 in women and 1.26±3.39 in men, and the difference between the parents' mean total score on the Coronavirus Anxiety Scale was statistically significant ($p<0.05$). On the other hand, it was determined that the difference between depression, anxiety and stress between men and women was not statistically significant ($p>0.05$).
Conclusion: It was determined that PCR testing from their children due to the suspicion of COVID-19 caused depression, anxiety, stress and anxiety in parents, and the anxiety level of women was higher than men. Accordingly, parents should be given the opportunity to determine their anxiety and stress and take initiatives for it, and appropriate counseling services should be provided to reduce anxiety and stress during the pandemic process.

Keywords: COVID-19, parents, child, depression, anxiety, stress

ÖZ

Amaç: Bu araştırma, PCR test sonucu bekleyen ebeveynlerin depresyon, anksiyete, stres ve koronavirüs kaygı düzeylerini belirlemek amacıyla yapıldı.
Yöntem: Kesitsel tipte tasarlanan çalışma, Nisan-Ekim 2021 tarihleri arasında yürütüldü. Araştırmanın örneklemini güç analizi ile belirlenen 372 ebeveyn oluşturdu. Veriler, Doğu Anadolu Bölgesinde bir ilde yer alan Eğitim ve Araştırma hastanesinin çocuk COVID servisinde, çocuklarının PCR test sonucunu bekleyen ebeveynlerden toplandı. Veriler kişisel bilgi formu, Depresyon Anksiyete Stres Ölçeği (DASÖ) ve Koronavirüs Kaygı Ölçeği (KKÖ) kullanılarak toplandı. Sonuçlar $p<0.05$ anlamlılık düzeyinde değerlendirildi.
Bulgular: Çalışma bulgusuna göre ≥36 yaş olan, ≥11 yıl evli olan, lise ve altı düzeyinde eğitim gören, ≥3 çocuk olan ebeveynlerin depresyon, anksiyete, stres yaşama durumları ile koronavirüs kaygı düzeylerinin daha fazla olduğu belirlendi. Ebeveynlerin yaşadığı kaygı düzeyinin kadınlarda 2.16±4.39; erkeklerde 1.26±3.39 olduğu ve ebeveynlerin Koronavirüs Kaygı Ölçeği toplam puan ortalamaları arasındaki farkın istatistiksel olarak anlamlı olduğu belirlendi ($p<0.05$). Bununla birlikte kadın ve erkek arasında depresyon, anksiyete ve stres yaşama durumları arasındaki farkın istatistiksel olarak anlamlı olmadığı belirlendi ($p>0.05$).
Sonuç: Çocuklarından COVID-19 şüphesi nedeniyle PCR testi alınması ebeveynlerde depresyon, anksiyete stres ve kaygıya neden olduğu, kadınların kaygı düzeyinin erkeklerden daha fazla olduğu belirlendi. Buna göre ebeveynlerin kaygı ve stresinin belirlenmesine yönelik girişimlerin yapılabilmesine fırsat tanınmalı, pandemi sürecinde kaygı ve stresin azaltılması için uygun danışmanlık hizmetleri sağlanmalıdır.

Anahtar Kelimeler: COVID-19, ebeveyn, çocuk, depresyon, anksiyete, stres

Introduction

COVID-19 has been defined as an epidemic/pandemic by the World Health Organization (WHO), as it has caused a disease on a global scale in all societies across the world (1). The infection was first detected in Wuhan city of the People's Republic of China, and the first child cases were also reported by the People's Republic of China. In some reports from all over the world, it was stated that the virus caused permanent damage to the lungs in children, and that some of these damages resulted in death (2). Although it has been reported in studies that the COVID-19 epidemic has fewer negative effects on children compared to the adult population, reporting of disease and death rates in children can lead to anxiety and stress in families (3).

The most important responsibility in the development of societies and ensuring its permanence belongs to the family. Societies need powerful and strong family values in creating their culture and maintain its continuity. A powerful and strong family consists of parents who provide the physiological and social needs of the child, particularly the psychological needs, in a holistic

manner. Parents assuming common responsibility in meeting the child's needs is an undeniable fact for the development of the child and the family (4). Parents who assume common responsibility protect the child while providing care, ensure that they grow up as individuals in harmony with the society, and thus constitute a role model for future generations. In the pandemic process, the families of the children who test positive in the PCR test have difficulty in providing care for their children due to the anxiety and stress they experience, and find it difficult to be a role model for their children. Children, on the other hand, cannot fulfill their developmental responsibilities, and this situation exacerbates the families' depression, stress, and anxiety levels (5, 6).

Anxiety is the total response of a human being to threat or danger. Each experience of anxiety involves a perception of danger, thoughts about harm, and a process of physiological alarm and activation. Diagnostic criteria are include excessive anxiety and worry for at least six months, difficulty controlling the worrying (7). The accompanying behaviors display an emergency effort toward "fight or flight". The short-term perceived threat experienced by the individual leads to temporary and short-term anxiety, which is defined as state anxiety, and when the perceived threat experienced by the individual is long-term or permanent, this situation is called trait anxiety (8).

The society in which individuals live and the family environment in which they are raised affect their reaction to anxiety. The perception and duration of anxiety have individual, social, and biological roots. The ongoing pandemic process and children being infected can increase families' anxiety levels. The child being hospitalized with a potential diagnosis of coronavirus disease negatively affects the parents' mental health and can lead to affective disorders. Uncertainties related to the disease and the process we are currently in can lead to obscurities in parents, decrease their trust in future, and may trigger thoughts that the continuation of their generation is under threat (2, 4). In the previous literature review, no study has yet been found on a similar sample group. Therefore, in the present study, it was aimed to determine parents' approach to the diseases of their children, and to reveal the depression, anxiety, and stress levels of parents and children, and the attitudes that the parents whose children were tested with PCR displayed towards this situation were measured.

Materials and Methods

The present study with a cross-sectional design was conducted in the Child COVID-19 clinic of a Training and Research Hospital located in a province in the east of Turkey between April-October 2021. The sample size was calculated by using Open Source Epidemiologic Statistics for Public Health (OpenEpi) version 3.01 (9). The sample size was calculated to be 372 parents with 5% margin of error, 95% confidence interval at bilateral significance level, and 80% power.

The inclusion criteria for parents are:

- Not experiencing problems in establishing communication,
- Being literate,
- Having a child in the age range of 0-18 years from whom swab sample was taken for PCR test.

The exclusion criteria for parents are:

- Having a mental and cognitive health problem history (both in the parents and the child-based on verbal statements of parents),
- Being illiterate,
- Having a diagnosed chronic disease (both in the parents and the child)
- Having a diagnosed psychological disorder (both in the parents and the child-based on verbal statements of parents),
- Being separated/divorced from the spouse

Data Collection

Parents who met the inclusion criteria and volunteered to participate in the study were informed about the purpose and content of the study, and their written consents were taken. Data collection tools were administered face-to-face by the researcher to the parents from whose children swab sample was taken for PCR test in the patient rooms of the Child COVID-19 clinic at Malatya Training and Research Hospital. The administration of the data collection tools took about 10 minutes in one session.

Data Collection Tools

The study data were collected through Personal Information Form, Depression, Anxiety, Stress Scales (DASS-21) and Coronavirus Anxiety Scale (CAS).

Personal Information Form

Personal Information Form was developed by the researchers in two sections. In the first section of the form, there are questions identifying some descriptive characteristics of the parents (age, education level, employment status, income level, family type, etc.). The second part consists of questions inquiring about the opinions of the parents about COVID-19 (level of knowledge about COVID-19, thinking whether the COVID-19 pandemic affected the child's health). The participating parents were asked to respond to the questions on a scale of 10 (0 = I have no knowledge, 10 = I know very well; 0 = Not affected at all, 10 = Affected a lot) (10, 5, 11).

Depression, Anxiety, Stress Scales (DASS-21)

The scale is the short form of DASS-42 developed by Lovibond and Lovibond (1995) in order to evaluate individuals' depression, anxiety, and stress levels (12). Turkish adaptation and factor analyses were

performed by Saricam (2018). The scale has three subscales, which are depression, anxiety, and stress. The scale consists of 21 items, with 7 items in each subscale. The items of the 4-point Likert type scale are scored between 0 (Never) and 3 (Always). The Cronbach's alpha reliability coefficients of the subscales were found a=0.87 for the depression subscale, a=0.85 for the anxiety subscale, and a=0.81 for the stress subscale (13). In the present study, the Cronbach's alpha reliability coefficients were found as 0.863 for the depression subscale, 0.896 for the anxiety subscale, and 0.893 for the stress subscale.

Coronavirus Anxiety Scale (CAS)

The scale was developed by Lee (2020) in order to determine the anxiety cases in individuals created by the pandemic and identify the severity of anxiety symptoms (14). The Turkish adaptation and factor analyses were performed by Akkuzu et al. (2020). The 5-point Likert type scale consists of 5 items. The items of the scale are scored between 0 and 4, and there are no reversely scored items. In the single-factor scale, high scores indicate high level of anxiety (15). The scale's Cronbach's alpha reliability coefficient was found as a=0.81. The Cronbach's alpha reliability coefficient of the scale was found to be 0.915 in the present study.

Statistical Analysis

The data were analyzed by using SPSS 25.0 for Windows software (SPSS, Chicago, IL, USA). Descriptive statistics were presented as numbers, percentages, means, and standard deviations, the intergroup comparison of categorical variables was made through Chi-square test. In the intergroup comparisons for variables that meet the parametric test conditions, t-test in independent groups was performed. The results were evaluated at $p<0.05$ significance level.

Ethical Considerations

Before starting the study, ethical approval was obtained from Inonu University Non-Interventional Clinical Research and Publications Ethics Committee (Decision No: 2021/1911), and written permission was taken from the Provincial Health Directorate (Decision No: E-72527474-771). In addition, permission for COVID-19 scientific research was taken from the Turkish Republic Ministry of Health (Form code: 2021-04-26T14_32_49). In addition, this study was conducted in accordance with the Good clinical Practice (GCP) and Declaration of Helsinki. Information about the research was given to the participating parents on the first page of the survey form, and their informed consents were taken.

Results

It was determined that 56.5% of the participating parents were 36 years old and above, 56.21% had an educational status of high school and below, 74.5% had middle income status, 56.7% were unemployed, 61.0% had at least one and two children, and 57.5% had been married for more than 11 years. Among the parents waiting for PCR test results, 54.6% were waiting for the PCR results for their sons (Table 1).

Table 1. The distribution of parents according to some characteristics

Characteristics	Woman (n =203)		Man (n=169)		Total (n=372)	
	n	%	n	%	n	%
Age						
20-35 years	104	51.2	58	34.3	162	43.5
≥36 years	99	48.8	111	65.7	210	56.5
Education status						
≤ High school	125	61.6	106	62.7	231	62.1
≥ University	78	38.4	63	37.3	141	37.9
Income status						
Low	21	10.3	15	8.9	36	9.7
Medium	148	72.9	129	76.3	277	74.5
High	34	16.8	25	14.8	59	15.8
Employment status						
Employed	69	34.0	142	84.0	211	56.7
Unemployed	134	66.0	27	16.0	161	43.3
Number of living children						
≤2 children	121	59.6	106	62.7	227	61.0
≥3 children	82	40.4	63	37.3	145	39.0
Gender of the child						
Girl	98	48.3	71	42.0	169	45.4
Boy	105	51.7	98	58	203	54.6
Marriage years						
1-10 years	82	40.4	76	45.0	158	42.5
≥11 years	121	59.6	93	55.0	214	57.5

The comparison of the parents by gender in terms of depression, anxiety, and stress subscale scores and CAS mean score is presented in Table 2. Accordingly, it was determined that the difference between the parents in terms of experiencing depression, anxiety, and stress was not statistically significant ($p>0.05$). However, according to the results of the t-test in independent groups, it was found that females' anxiety levels were higher compared to the anxiety levels of males, and that the difference between the parents' CAS total mean scores was statistically significant ($p<0.05$) (Table 2).

Table 3. The distribution of the parents' scores obtained from CAS according to some characteristics (n=372).

Characteristics	Depression			Anxiety			Stress		
	Yes (n, (n, %)	**No** (n, %)	**Test* and *p* value**	**Yes** (n, %)	**No** (n, %)	**Test* and *p* value**	**Yes** (n, %)	**No** (n, %)	**Test* and *p* value**
Age									
20-35 years	74,38.5	88,48.9	χ^2=4.046	76,34.4	86,57.0	χ^2=18.579	54,34.8	108,49.8	χ^2=8.199
≥36 years	118,61.5	92,51.1	***p*=0.044**	145,65.6	65,43.0	***p*=0.000**	101,65.2	109,50.2	***p*=0.004**
Education status									
≤ High school	113,58.9	118,65.6	χ^2=1.773	127,57.5	104,68.9	χ^2=4.960	98,63.2	133,61.3	χ^2=0.144
≥ University	79,41.1	62,34.4	*p*=0.183	94,42.5	47,31.1	***p*=0.026**	57,36.8	84,38.7	*p*=0.704
Income status									
Low	19,9.9	17,9.4	χ^2=3.370	21,9.5	15,9.9	χ^2=0.126	15,9.7	21,9.7	χ^2=3.666
Medium	149,77.6	128,71.1	*p*=0.185	166,75.1	111,73.5	*p*=0.939	122,78.7	155,71.4	*p*=0.160
High	24,12.5	35,19.4		34,15.4	25,16.6		18,11.6	41,18.9	
Employment status									
Employed	108,56.3	103,57.2	χ^2=0.036	130,58.8	81,53.6	χ^2=0.981	83,53.5	128,59.0	χ^2=1.089
Unemployed	84,43.8	77,42.8	*p*=0.850	91,41.2	70,46.4	*p*=0.322	72,46.5	89,41.0	*p*=0.297
Number of living children									
≤2 children	110,57.3	117,65.0	χ^2=2.321	128,57.9	99,65.6	χ^2=2.204	96,61.9	131,60.4	χ^2=0.093
≥3 children	82,42.7	63,35.0	*p*=0.128	93,42.1	52,34.4	*p*=0.138	59,38.1	89,39.6	*p*=0.760
Gender of the child									
Girl	93,48.4	76,42.2	χ^2=1.448	99,44.8	70,46.4	χ^2=0.088	75,48.4	94,43.3	χ^2=0.937
Boy	99,51.6	104,57.8	*p*=0.229	122,55.2	81,53.6	*p*=0.766	80,51.6	123,56.7	*p*=0.333
Marriage years									
1-10 years	72,37.5	86,47.8	χ^2=4.016	76,34.4	82,54.3	χ^2=14.562	55,35.5	103,47.5	χ^2=5.312
≥11 years	120,62.5	94,52.2	***p*=0.045**	145,65.6	69,45.7	***p*=0.000**	100,64.5	114,52.5	***p*=0.021**

*****Pearson Chi-Square test, DASS-21: Depression, Anxiety, Stress Scales

Table 2. Comparison of the distribution of the parents according to the mean scores of DASS-21 and CAS (n=372)

		Woman (n =203)		Man (n=169)		Total (n=372)		
	Scales	**n**	**%**	**n**	**%**	**n**	**%**	**Test* and *p* value**
DASS-21	**Depression**							
	Yes (5-21 score)	108	53.2	84	49.7	192	51.6	X^2=0.452
	No (0-4 score)	95	46.8	85	50.3	180	48.4	*p*=0.501
	Anxiety							
	Yes (4-21 score)	129	63.5	92	54.4	221	59.4	X^2=3.173
	No (0-3 score)	74	36.5	77	45.6	151	40.6	*p* =0.075
	Stress							
	Yes (8-21 score)	93	45.8	62	36.7	155	41.7	X^2=3.160
	No (0-7 score)	110	54.2	107	63.3	217	58.3	*p* =0.075
		Mean±SD		**Mean±SD**		**Mean±SD**		**Test** and *p* value**
	CAS	2.16±4.39		1.26±3.39		1.78±3.99		*t*=2.228 **p=0.026**

*****Pearson Chi-Square test, ** Independent samples *t*-test, DASS-21: Depression, Anxiety, Stress Scales, CAS: Coronavirus Anxiety Scale

The distribution of the parents' status of experiencing depression, anxiety and stress according to certain characteristics is presented in Table 3. According to the table, the difference between the parents' status of experiencing depression, anxiety, and stress in terms of the parents' educational level, income status, employment status, the number of living children, and the gender of the child waiting for the PCR test result was determined to be statistically insignificant (p>0.05). However, while there was a statistically significant difference between the status of experiencing anxiety according to the educational status, the difference between the distribution of the status of experiencing depression, anxiety, and stress according to age and duration of marriage was determined to be statistically significant (p<0.05) (Table 3).

The comparison of the parents' scores obtained from CAS according to certain characteristics is presented in Table 4. Accordingly, it was determined the difference between the parents' status of experiencing coronavirus anxiety mean scores did not change according to their education and income status and the gender of the child waiting for the result of the PCR test, and that the difference between the groups was not statistically significant (p>0.05). On the other hand, it was found that those who were 36 years old and above, unemployed, had three children and more, and married for more than 10 years experienced higher coronavirus anxiety, and that the difference between CAS total mean scores was statistically significant (p<0.05) (Table 4).

Table 4. The comparison of the parents' scores obtained from CAS according to some characteristics (n=372)

Characteristics			**CAS**	
Age	**n**	**%**	**Mean±SD**	**Test* and *p* value**
20-35 years	162	43.5	0.92**±2.99**	*t*=-3.585, **p=0.000**
≥36 years	210	56.5	2.40**±4.52**	
Education status				
≤ High school	231	62.1	1.64**±4.06**	*t*=-0.725, *p*=0.469
≥ University	141	37.9	1.95**±3.88**	
Income status				
Low	36	9.7	2.44**±5.21**	F**=0.782, *p*=0.458
Medium	277	74.5	1.74**±3.74**	
High	59	15.8	1.38**±4.31**	
Employment status				
Employed	211	56.7	1.38**±3.61**	*t*=-2.051, **p=0.041**
Unemployed	161	43.3	2.24**±4.40**	
Number of living children				
≤2 children	227	61.0	1.30**±3.41**	*t*=-2.768, **p=0.006**
≥3 children	145	39.0	2.46**±4.68**	
Gender of the child				
Girl	169	45.4	1.43**±3.56**	*t*=-1.439, *p*=0.151
Boy	203	54.6	2.02**±4.31**	
Marriage years				
1-10 years	158	42.5	1.00**±3.10**	*t*=-3.183, **p=0.001**
≥11 years	214	57.5	2.31**±4.46**	

* Independent samples *t*-test, ** One-way ANOVA test, CAS: Coronavirus Anxiety Scale

The comparison of the parents' opinions about COVID-19 is presented in Table 5. It was determined that the parents' knowledge levels of COVID-19 were similar, and that the difference between the groups was not statistically significant (p>0.05). On the other hand, it was found that it was the females who mostly thought that the COVID-19 pandemic affected their children's health, and that the difference between the groups was statistically significant (p<0.05) (Table 5).

Table 5. The comparison of the parents' opinions about COVID-19

Opinions	**Mean ± SD**		**Test¥ and *p* value**
	Woman	**Man**	
Describe your level of knowledge about COVID-19*	6.78±2.61	7.06±2.43	*t*=-1.068, *p*=0.286
Do you think the COVID-19 pandemic is affecting your child's health?**	7.29±2.96	6.55±3.25	*t*=2.273, **p=0.024**

*¥Independent samples t-test, * 0: I have no knowledge-10 I know very well, **0: Not affected at all-10 Affected a lot*

Discussion

In the present study conducted in order to determine the status of experiencing depression, anxiety, and stress of the parents who were waiting for the PCR test results of their children and their anxiety levels, it was determined that the rate of experiencing depression, anxiety, and stress was higher in females, but that the difference between the groups was not statistically significant. Considering Coronavirus Anxiety Scale mean scores, similarly it was found that females (2.16±4.39) experienced more anxiety compared to males (1.26±3.39), and that the difference between the groups was statistically significant (Table 2). The reason for females experiencing more depression, anxiety, and stress compared to males can be explained through several causes. The caregiver culturally being the mother, the care of the sick child belonging to the mother, and the father assuming an assisting role are some of these causes (16). However, the fact that home caregivers are usually mothers in infectious diseases also increases the level of anxiety and anxiety in women. As a matter of fact, in a systematic review conducted to evaluate the risk factors of Ebola or Marburg virus, it was stated that home caregivers are at higher risk and it was stated that caregivers may have high anxiety (17). In addition, it can be said that the fact that women have less decision-making powers than men during the epidemic also contributes to this situation. In a study investigating the effect of gender in the management of the Ebola virus, it was stated that women are less likely than men to have the authority to make decisions about the epidemic, and the needs of women are not met to a large extent (19). In another study conducted, parents' care responsibilities were evaluated, and it was found that the mean score of females were higher in terms of their burden of providing care compared to the mean score of males (19). In yet another study conducted in order to determine the factors related with depression, anxiety, and stress in parents in the COVID-19 pandemic process, it was determined that being a female positively predicted anxiety (20).

According to the findings obtained in the present study, it was found that the parents at more advanced age ((≥36 years) were more likely to experience depression, anxiety, stress, and coronavirus related anxiety, and that the status of experiencing coronavirus related anxiety increased in parallel with the increasing number of children (≥3 children) and being unemployed (Table 3, Table 4). In a study in which the stress levels of families with disabled children were examined, it was determined that families with high school education experienced more stress (21). In another study conducted on parents' depression, anxiety, and stress levels in the COVID-19 quarantine process, it was revealed that having a low level of education positively predicted anxiety (20). Similarly, in another study which examined parents' stress levels and related factors, it was found that as the level of education decreased, stress scores increased (11). In yet another study which evaluated the stress levels of parents, it was reported that as the number of children increased, the parents' stress levels also increased (11). According to the findings of a study in which the depression levels of parents who had children with chronic diseases were examined, it was determined that parents with advanced age had higher depression scores (10). Finally, in a study in which emotional states of parents in relation to the coronavirus epidemic were analyzed, it was found that the negative emotional states of parents increased along with increasing age (22).

According to the results of the present study, it was determined that parents with longer duration of marriage (≥11 years) experienced more depression, anxiety, stress and coronavirus related anxiety. It can be thought that this situation may have resulted from the decrease in marital harmony and the increasing number of children along with the increasing duration of marriage. As a matter of fact, there are studies in the literature which found that as the number of children in the family increased, the stress and anxiety levels of parents also increased (10, 11), in addition to studies that evaluated the relationship between duration of marriage and anxiety level. In a study in which the relationship between anxiety level and marital harmony was investigated, it was determined that as the duration of marriage and the number of children increased, spouse harmony decreased, and the anxiety levels of spouses whose spouse harmony decreased increased (23). These results support the findings of the present study.

According to another finding obtained as a result of the study, it was determined that those who thought that the health of their children affected the health of their children in the COVID-19 pandemic were mostly women ($p<0.05$) (Table 5). It can be said that one of the reasons for this situation is that more women are the caregiver parents at home, and therefore the care power of women during the pandemic process increases. As a matter of fact, according to OECD Policy Responses to Coronavirus (COVID-19), it has been stated that women spend more time (35 minutes) caring for their children, and this rate is twice as high as men (15 minutes) (24). Therefore, it is thought that women experience more anxiety than men.

Conclusion and Recommendations

As a result of the study, it was determined that swab sample being taken for PCR test from their children due to disease symptoms caused depression, anxiety, stress, and coronavirus related anxiety in parents, and that the anxiety levels of females were higher than those of males. There is a need for more comprehensive studies that will determine the anxiety and stress levels of parents during PCR test and will enable interventions in this regard. In order to reduce the anxiety that parents experience during their children's PCR test, parents should be informed in detail about the COVID-19 disease and the purpose of PCR test, and they should be allowed to express their

concerns. Along with direct intervention, permanent support rather than spontaneous support should be provided to parents in reducing their depression, anxiety, and stress symptoms. Healthcare professionals should be provided with periodical training on coping with depression, anxiety, and stress, and thus they should be enabled to effectively consult the parents by establishing empathy with them.

Limitations of the Study

This study has some limitations. One of them is that generalization cannot be made because the parents participating in the study were reached in a single center. Another limitation is that the anxiety and anxiety states of the parents could not be evaluated in the long term.

Declaration of Conflicting Interests

The authors declare that there were no potential conflicts of interest with regard to the research, authorship and/or publication of this article.

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