

**Original Article**

**An analysis of parents' perceived stress and the parent-child relationship during the COVID-19 pandemic**

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**Abstract**

**Objectives:** The measures taken by governments to prevent the spread of COVID-19 have changed millions of people's daily lives. This study analyzes parents' perceived stress and parent-child relationship while staying home due to lockdown during the COVID-19 pandemic.

**Methods:** The sample for this descriptive and cross-sectional study comprised 521 parents with children aged 4-18 years. Data were collected online using a Personal Information Form, the Perceived Stress Scale (PSS-4), and Child Parent Relationship Scale (CPRS) between 2 and 27 April 2020 in Turkey. **Findings:** The mean age of the study participants was 38.98±6.578 years, and 53.2% of participants were female. The parents' mean PSS-4 and CPRS scores were 8.45±2.37 and 53.62±11.71, respectively. Of the parents, 44.0% stated that the days spent in the "Staying Home" period strengthened their relationships with their children, and 56.4% thought that it had provided them with the opportunity to take better care of their child. Mothers' mean CPRS conflict scores were significantly higher than those of the fathers, and a negative relationship was found between the PSS-4 and CPRS positive-relationship sub-dimensions.

**Conclusion:** Psychosocially supporting interventions should be planned for parents, especially mothers, who hold the most responsibility concerning housework and childcare during situations affecting the life adversely.

**Keywords:** COVID-19; stress; parent-child relationship.

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**Introduction**

Since the beginning of humanity, exceptional situations such as natural disasters or pandemics have affected societies. The novel coronavirus (COVID-19) spreading globally is clearly an exceptional situation. The measures taken by governments to prevent the spread of COVID-19 have changed millions of people's daily lives. During this process, workplaces, educational environments, and public activities have

been closed or restricted, and physical distance measures have been implemented. Although the "social isolation" or "stay home" restrictions have been effective in preventing the spread of the virus, they also have negative economic, social, and health-related effects.<sup>1,2</sup> The literature reports mental problems related to quarantine restrictions implemented during such pandemics, such as anxiety, depression symptoms, impaired sleep quality,<sup>3</sup>

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During this process, serious measures have been and are still taken to prevent the increasing infection in Turkey. On March 13, 2020, the Ministry of Interior sent a “Lockdown Circular” to all Governorships within the scope of the fight against COVID-19 pandemic. This document described restrictions or arrangements in many sectors such as banks, transportation, markets, foods, cleaning, and medication to minimize the effect of lockdown on daily life.<sup>8</sup> In addition, primary and secondary educational institutions and universities started to provide online education; authorities warned people about “staying home” and “social isolation,” and critical measures were imposed to minimize physical health problems and loss of lives. However, reflections of this process are still seen on individuals’ mental health, daily lives, and family and social relationships.

COVID-19 led to a sudden and deep change in families’ living conditions and lifestyles and caused many parents to face certain stressors. During the COVID-19 pandemic, parents may be stressed because of their families’ economic and physical health, their children being away from their peers and teachers, management of their children’s education process at home, and providing their children with information about COVID-19 in a way appropriate to their age.<sup>9</sup> In addition to working and dealing with housework, parents’ responsibilities have increased because their children receive education at home. As the demands at home, and thus parents’ stress increase, children may be negatively affected.<sup>10</sup>

Parents’ role as educators have become even more important as they are usually the only people around their children to help them with homework, follow their education, and encourage positive developments and new learning experiences for their toddlers and preschool children.<sup>11</sup> In addition, they have been alone in not only supporting their children’s education, but also managing their children and home environment. The social support that they previously received from babysitters or grandparents has reduced. Even though the quarantine process means increased time spent with family members, parents try to continue their individual lives as usual and maintain their daily work duties. In this process, the new lifestyle that they experience together with their children increases their burden, which significantly increases

the risk for experiencing stress and negative emotions for parents.<sup>12</sup> There is evidence that mothers with small children experience higher levels of depression and anxiety related with COVID-19.<sup>13</sup> A study conducted in Japan found that parents’ stress levels significantly increased when schools were closed due to the COVID-19.<sup>14</sup> Other studies have also reported that parents experienced higher stress due to the lockdown during the COVID-19 process.<sup>15</sup>

Due to the COVID-19 pandemic, domestic routines have been disrupted, parents’ social support has reduced, and parents have had to do the work that professionally trained teachers do without receiving any specialized education. All these changes occurred suddenly; the COVID-19 pandemic has caused many negative effects such as increased psychological problems in families, parental stress, and impaired functions as a spouse or a parent. Therefore, it is important to identify the effects of COVID-19 on families’ stress and the parent-child relationship in terms of making plans on how educators and managers can support family members in the process ahead. In this regard, the present study aims to analyze the stress experienced by parents and the parent-child relationship during the process when people must stay home due to the lockdown implemented to avoid viral infections during the COVID-19 pandemic.

## Materials and Methods

### *Research design*

The population of this descriptive and cross-sectional study comprised mothers and fathers with children aged 4–18 years.

### *Sampling*

A minimum sample size of 210 was calculated using power analysis under the assumptions of type-I error ( $\alpha$ )=0.05, type II error ( $\beta$ )=0.05, (power=0.95), and an effect size=0.05. By taking individual and cultural differences into account, the aim was then to double this sample size (n=420). A data collection form was created online using Google Forms, and the participants were invited to the research through paid digital advertisements on online platforms (Facebook, Instagram, YouTube, etc.). Participants were informed that participation was voluntary and that they could leave the study at any time before the data were sent to the researcher. The online data collection

form was set up to require participants to answer all questions before proceeding to the next question / form, thus avoiding missing data. Inclusion criteria were having at least one child between the ages of 4 and 18, participating in the research voluntarily, and not having any physical or cognitive disability that may be an obstacle to participating in the study. Data were collected from 591 individuals between 2 and 27 April 2020. A total of 70 participants who did not meet the inclusion criteria were excluded from the study, and therefore the research sample comprised 521 participants.

#### **Data collection tools**

**Personal Information Form:** This form comprises 10 questions on the participants' age, marital status, number of children, economic status, educational status, and the characteristics of their children; the form also includes seven questions on the parent-child relationship during the "Staying Home" period because of COVID-19 (see Table 2).

**Perceived Stress Scale (PSS):** This scale was developed by Cohen, Kamarck, and Mermelstein (1983) to measure how stressful an individual perceives events/situations in their life to be. The PSS comprises 14 items, and the participants score each item between 0 and 4. Seven items with positive statements are reversely scored. In addition to its fourteen-item form, the PSS has two further 10-item and 4-item forms. The total PSS-14, PSS-10 and PSS-4 scores are 0 to 56, 0 to 40 and 0 to 16; respectively. A high score shows that the person's perception of stress is high. This study used the PSS-4 form for ease of application. The PSS was adapted to Turkish by Eskin et al. (2013).<sup>16</sup> The Cronbach's alpha value of the scale in the present study was 0.66.

**Child Parent Relationship Scale (CPRS):** CPRS was developed by Pianta (1992) to determine the strength levels of child-parent relationships. Mother-child interaction literature, attachment theory, and The Attachment Q-Set developed by Waters & Dean (1985) were all used while preparing the items during the scale-development study. The CPRS defines child and parent relationships from childhood to adolescence according to two dimensions. While the original version of the CPRS comprises 30 items and three sub-dimensions (attachment, conflict, positive relationship), the scale was reduced to 24 items and two sub-dimensions (conflict and positive relationship) in the Turkish adaptation study conducted by Akgün and Yeşilyaprak (2010).<sup>17</sup>

The scale includes 10 items describing a positive relationship and 14 items describing a relationship of conflict. The first, third, fifth, eighth, 10<sup>th</sup>, 13<sup>th</sup>, 16<sup>th</sup>, 20<sup>th</sup>, 29<sup>th</sup>, and 30<sup>th</sup> items of the scale are reversely coded. The total score to be obtained from the scale is 24–120. A high score on the scale indicates a relationship conflict between the parent and child, while a low score indicates positive parent-child relationship.<sup>17</sup> In this study, the total Cronbach alpha value for the CPRS was found to be 0.81.

#### **Ethical Considerations**

The Ethical Committee number 71522473/050.01.04/172 and date 14.04.2020 and the Turkish Ministry of Health COVID-19 Scientific Research Evaluation Commission gave approval for the conduct of the study.

#### **Data analysis**

The IBM SPSS Statistics 25 software program was used to analyze the study data. Data were analyzed using frequency distribution for categorical variables, and descriptive statistics (mean, standard deviation) for numerical variables. Because the skewness and kurtosis indices are close to 0 within the limits of  $\pm 1.96$ , and the numerical variables and the distribution of the sample mean approach the normal distribution for  $n \rightarrow \infty$  according to the Law of Large Numbers, the conformity to a normal distribution was considered evidence and parametric tests were used. The independent *t* test was used when comparing binary groups and one-way analysis of variance (ANOVA) in the comparison of three and more groups. Pearson correlation analysis was used to analyze the relationship between two numerical variables, and Cronbach's alpha values were used to determine scale reliability. The level of statistical significance was accepted as  $p < 0.05$ .

#### **Results**

The mean age of the participants was  $38.98 \pm 6.578$ , of which 53.2% were female, 39.5% were university graduates, 22.8% did not work or were housewives, 25.7% did not work due to coronavirus, and 48.6% of had one child aged 4–18 years. While 59.5% of the parents used "compatible" when describing their children, 12.9% described them as "moody". Additionally, 4.4% of the children had a physical or mental problem (autism, asthma, epilepsy, specific learning disorders, Asperger syndrome, cerebral palsy, congenital heart disease, etc.) (Table 1).

**Table 1** - Sociodemographic characteristics of participants

Variable	N	%
<b>Sex</b>		
Female	277	53.2
Male	244	46.8
<b>Age</b>		
24–30	48	9.2
31–40	285	54.7
41–50	163	31.3
51–60	25	4.8
<b>Educational Status</b>		
Primary Education	120	23.0
High School	138	26.5
University	206	39.5
Master’s Degree	57	10.9
<b>Marital status</b>		
Married	503	96.5
Single	18	3.5
<b>Occupation</b>		
Unemployed	119	22.8
Freelancer	81	15.5
Private sector	50	9.6
Retired	8	1.5
Worker, driver, iron	46	8.8
Healthcare professionals	33	6.3
Officer (teacher, accounting staff, mechanical engineer etc.)	179	34.4
Sergeant, police	5	1.0
<b>Status of employment</b>		
Currently working	174	33.4
Unemployed	167	32.1
I do not work due to COVID-19	134	25.7
I work on certain days because of COVID-19	46	8.8
<b>Number of children between the ages of 4-18</b>		
1	253	48.6
2	212	40.7
3 and above	56	10.7
<b>Ages of the children*</b>		
4–6 years old	210	40.3
7–13 years old	349	67
14–18 years old	147	28.2
<b>Characteristics of the children *</b>		
Calm	174	33.4
Harmonious	310	59.5
Docile	242	46.4
Active	311	59.7
Moody	67	12.9
Restless	165	31.7
Other	28	5.4
<b>Presence of child disease</b>		
Yes **	23	4.4
No	498	95.6
<b>Total</b>	<b>521</b>	<b>100</b>

\*multiple options are marked.

\*\* (autism, asthma, epilepsy, specific learning disorder, Asperger syndrome, cerebral palsy, congenital heart disease, etc.)

Of the participants, 66.0% stated that they provided their children with complete information concerning coronavirus at a level they could understand; 44.0% stated that the quarantine (“Stay Home”) process allowed them to build a closer relationship with their

child, 56.4% had greater opportunity to take care of their children and 59.5% stated that this process made the children gain positive behaviors, such as hand washing and personal hygiene. However, 51.6% stated that the quarantine process negatively affected their child’s psychology (Table 2).

**Table 2** - Distribution of participant responses on parent-child relationships during the “Lockdown” period

Statements	It is not right		Partially correct		Absolutely right	
	n	%	n	%	n	%
1. I think I acquired information about Coronavirus from the right source.	7	1.3	200	38.4	314	60.3
2. I think I have provided my child with enough information about the Coronavirus.	9	1.7	168	32.2	344	66.0
3. I think the information I give about Coronavirus causes Conflicted behavior/emotional change in my child (aggressive behavior, stress, anxiety, sadness, fear, etc.).	298	57.2	180	34.5	43	8.3
4. I think the quarantine process negatively affects my child’s psychology.	149	28.6	269	51.6	103	19.8
5. I think the quarantine process allowed me to have a closer relationship with my child.	78	15.0	214	41.1	229	44.0
6. I think I have the opportunity to take more care of my child during the quarantine process.	60	11.5	167	32.1	294	56.4
7. I think the quarantine process has positive effects on my child’s behavior (hand washing, personal hygiene etc.)	39	7.5	172	33.0	310	59.5

The mean score of the participants’ PSS-4 was 8.45±2.37; their CPRS total, conflict, and positive-relationship sub-dimensions mean scores were 53.62±11.71, 32.20±9.89, and 21.42±4.13, respectively (Table 3).

**Table 3 -** Descriptive statistics of the scales

Scale	Range	Mean	SD	Min.	Max.
Perceived Stress Scale (PSS-4)	0–16	8.45	2.37	0.00	16.00
Child Parent Relationship Scale (CPRS)					
Conflict	14–56	32.20	9.89	14.00	67.00
Positive relationship	10–40	21.42	4.13	14.00	41.00
CPRS Total	24–120	53.62	11.71	30.00	87.00

The PSS-4 mean scores of those participants with

physically or mentally ill children was found to be significantly higher than those of participants whose children had no physical or mental illness. The mothers' CPRS conflict mean scores and the positive relationship mean scores of the parents in the 41–50 age group were significantly higher than those in the 31–40 age group. Additionally, the mean conflict scores of parents with children aged 4–6 years and the mean positive relationship scores of the parents with children aged 14–18 years were significantly higher than those without children (Table 4).

**Table 4 -** Comparison of Perceived Anxiety Scale (PSS-4) and Child Parent Relationship Scale (CPRS) scores according to socio-demographic characteristics

	n	Child Parent Relationship Scale (CPRS)							
		PSS-4		Conflict		Positive relationship		Total	
		MN	SD	MN	SD	MN	SD	MN	SD
<b>Sex</b>									
Female	277	8.59	2.48	33.07	10.06	21.48	3.89	54.55	11.81
Male	244	8.30	2.22	31.21	9.61	21.35	4.38	52.57	11.52
t		1.373		<b>2.149*</b>		0.352		1.938	
p		0.170		<b>0.032</b>		0.725		0.053	
<b>Age</b>									
24–30 <sup>a</sup>	48	9.00	2.80	34.90	11.00	20.79	3.83	55.69	12.70
31–40 <sup>b</sup>	285	8.39	2.37	32.52	9.65	20.96	3.90	53.48	11.40
41–50 <sup>c</sup>	163	8.36	2.10	30.83	9.63	22.29	4.54	53.12	11.93
51–60 <sup>d</sup>	25	8.80	3.03	32.36	11.19	22.12	3.49	54.48	12.04
F		1.195		2.354		<b>4.289</b>		0.653	
p		0.311		0.071		<b>0.005*</b>		0.581	
Difference						<b>c&gt;b</b>			
<b>Educational Status</b>									
Primary Education	120	8.20	2.35	33.18	10.76	22.10	4.59	55.28	12.33
High School	138	8.47	2.86	31.75	10.39	20.84	4.18	52.59	12.22
University	206	8.56	1.99	31.87	9.37	21.30	3.89	53.17	11.16
Master's Degree	57	8.56	2.37	32.40	8.58	21.82	3.62	54.23	10.89
F		0.647		0.571		2.250		1.313	
p		0.585		0.635		0.082		0.269	
<b>Marital status</b>									
Married	503	8.45	2.39	32.18	9.90	21.40	4.17	53.59	11.73
Single	18	8.56	1.65	32.72	9.86	21.89	2.56	54.61	11.39
t		-0.183		-0.227		-0.490		-0.365	
p		0.855		0.820		0.624		0.716	

		Child Parent Relationship Scale (CPRS)								
		PSS-4		Conflict		Positive relationship		Total		
		n	MN	SD	MN	SD	MN	SD	MN	SD
<b>Occupation</b>										
Unemployed	127	8.38	2.94	33.51	10.83	21.57	4.20	55.08	12.50	
Private, freelance	177	8.45	2.26	31.87	10.05	21.34	4.77	53.21	12.18	
Healthcare Professionals	33	8.91	2.64	34.09	9.99	22.55	3.60	56.64	11.34	
Officer	184	8.43	1.95	31.28	8.93	21.19	3.43	52.47	10.59	
F		0.454		1.754		1.083		2.065		
p		0.715		0.155		0.356		0.104		
<b>Employment status</b>										
Employed	174	8.46	2.05	32.37	10.03	21.73	4.33	54.10	11.89	
Unemployed	167	8.38	2.82	33.25	10.59	21.60	4.29	54.85	12.37	
Does not work due to COVID-19	134	8.43	2.34	31.00	8.73	20.90	3.47	51.90	10.56	
Works on certain days due to COVID-19	46	8.76	1.69	31.24	9.73	21.11	4.44	52.35	11.36	
F		0.310		1.453		1.222		1.865		
p		0.818		0.226		0.301		0.135		
<b>Child age groups</b>										
<b>4–6 years old</b>										
None	311	8.46	2.31	31.44	9.91	21.69	4.04	53.13	11.77	
Present	210	8.45	2.46	33.33	9.77	21.02	4.23	54.36	11.60	
t		0.020		<b>-2.154 *</b>		1.807		-1.178		
p		0.984		<b>0.032</b>		0.071		0.239		
<b>7–13 years old</b>										
None	172	8.52	2.23	32.72	9.78	21.87	4.48	54.58	11.49	
Present	349	8.42	2.43	31.95	9.95	21.20	3.92	53.15	11.80	
t		0.423		0.832		1.736		1.314		
p		0.672		0.406		0.083		0.189		
<b>14–18 years old</b>										
None	374	8.44	2.28	32.57	9.92	21.03	4.02	53.60	11.75	
Present	147	8.49	2.58	31.27	9.79	22.41	4.23	53.67	11.63	
t		-0.211		1.356		<b>-3.463*</b>		-0.063		
p		0.833		0.176		<b>0.001</b>		0.950		
<b>Disease in Child (Physical or Mental)</b>										
Present**	23	9.65	1.61	36.04	10.08	21.22	4.89	57.26	11.34	
None	498	8.40	2.38	32.02	9.85	21.43	4.09	53.45	11.71	
t		<b>2.494*</b>		1.911		-0.241		1.527		
p		<b>0.013</b>		0.057		0.810		0.127		

\* $p < 0.05$ ; \*\*autism, asthma, epilepsy, specific learning disorder, Asperger syndrome, cerebral palsy, congenital heart disease, etc.

A significant negative relationship was found between the positive relationship scores of the PSS-4 and the CPRS (Table 5).

**Table 5** - The relationship between Perceived Stress Scale and Child Parent Relationship Scale

	Child Parent Relationship Scale			Total
	Conflict	Positive relationship		
Perceived Stress Scale	r	0.076	<b>-0.131*</b>	0.018
	p	0.081	<b>0.003</b>	0.675

\* $p < 0.05$

## Discussion

Epidemics can increase stress and anxiety in individuals and communities<sup>18</sup> and anxiety is a common response to the experience of stress.<sup>19</sup> In relation to the measures taken during the COVID-19 outbreak (e.g. social isolation, quarantine, lockdown etc.), anxiety of individuals may increase and their lives may be adversely affected by infection, social isolation, and stigmatization.<sup>18,20</sup> People living in quarantined areas experience psychological distress and anxiety in addition to physical symptoms such as cough and fever.<sup>18</sup> In a study conducted to investigate the stress, anxiety, and depression levels of society during the COVID-19 epidemic in China, 28.8% of the participants stated they experienced moderate to severe anxiety symptoms, and 8.1% stated they experienced moderate to severe stress.<sup>21</sup> In addition, COVID-19 may cause stress for parents in terms of job loss, income loss, caregiving burden, health, and their children's education.<sup>15</sup> A study conducted in Canada to analyze the effect of COVID-19 on families reported that parents experienced a very high stress.<sup>22</sup> The mean PSS-4 score of the participants in the present study was  $8.45 \pm 2.37$ . Accordingly, parents experienced moderate stress during COVID-19.

The literature suggests that many socio-demographic characteristics, such as gender, age, employment status and economic and educational status affect the severity of stress experienced by individuals during the epidemic.<sup>23-25</sup> In studies carried out by Kamal and Othman (2020) in Iraq,<sup>25</sup> and by Moccia et al. (2020) in Italy,<sup>23</sup> the rate of anxiety and stress among females was found to be higher than that of males during the COVID-19 pandemic. A study reported that mothers are more stressed about finances and concerned about food safety compared to men within the previous month and for the following six months of the COVID-19 pandemic.<sup>22</sup> Although the mean stress perceived by mothers was higher than that of

fathers, no such statistically significant difference could be found in the present study. An explanation for this finding might be that the mothers and fathers are not the parents of the same children.

There were changes in both the daily lives of individuals and in society as a result of the suggestions and sanctions of isolation by the authorized officers during the COVID-19, and these resulted in problems such as loneliness, anxiety, depression, and insomnia.<sup>26</sup> The children of those parents who participated present study had illnesses, such as autism, asthma, epilepsy, specific learning disorders, Asperger syndrome, cerebral palsy, congenital heart disease, etc. Illnesses and disorders such as autism, specific learning disabilities, Asperger syndrome, asthma, and heart disease in children and adolescents might also cause changes in their daily life routines and negatively affect both their behavior and their health status.<sup>27,28</sup> Asbury et al. (2020) analyzed the effect of COVID-19 limitations on the mental health of children with disabilities and special education needs and their parents and found that parents mostly experienced anxiety, stress, and burnout, and that anxiety and compulsive behaviors increased the among children.<sup>29</sup> The isolation and the "Staying Home" process might have negatively affected the behaviors and health of the children requiring and receiving special education. Regarding this, the present study perceived stress of parents with children with a physical or mental illness was found to be higher than those without such illnesses.

Interactions and relationships among family members affect each of them.<sup>30</sup> While positive relationships in a family positively affect the individuals concerned, conflicts can negatively affect social relationships and mental health.<sup>31</sup> The measures taken due to the pandemic such as social distancing, isolation, and lockdown negatively affected the social relationships of individuals. Problems such as loneliness, anxiety, and stress may occur following a decrease in social interactions and relationships.<sup>32</sup> Parents are exposed to a long and unexpected duration of maintaining their children's care and education due to the lockdown; and most parents continue to work remotely.<sup>11,33</sup> Staying home and the fact that children do not go to school in many situations may cause stress for children and their families. In a study conducted with Canadian parents with moderate and high income levels, the parents reported that they had difficulty in balancing their work duties and parenting roles (for instance, housework, maintaining children's

activities and education at home).<sup>22</sup> The total CPRS mean score in the present study was found to be  $53.62 \pm 11.71$ . In the studies conducted by Yaylacı (2019), Vatansver (2019), and Çetin (2019) before the COVID-19 pandemic, including parents, the mean CPRS scores were  $39.86 \pm 8.53$ ,  $47.13 \pm 10.3$ , and  $47.51 \pm 12.43$ , respectively.<sup>34-36</sup> Compared with findings in the literature, the present study found a negative relationship between the child and the parent. This may be attributed to the increased roles of parents resulting from the measures taken within the scope of the COVID-19 prevention.

In the present study, the mean CPRS conflict scores of the mothers were found to be significantly higher than those of the fathers. Similarly, Yaylacı (2019) found females' CPRS conflict sub-dimension scores to be higher.<sup>34</sup> Many parents perform their parental role full time due to the lockdown measures taken against COVID-19. Regardless of their age, children request things from their parents to meet their needs during the day, and most requests are made to their mothers. If a parent is unable to meet the wishes or demands of their child, they may feel inadequate, low-spirited, and exhausted.<sup>37</sup> In another study, some parents reported that they are stressed because it is unclear how life had changed or would change due to the pandemic.<sup>22</sup> Studies on mental health that have been carried out in the COVID-19 pandemic state that women experience more stress, anxiety, and use emotion-oriented coping styles more.<sup>24</sup> The present study found that the mothers had more conflicts with their children compared to the fathers, which can be attributed to their higher level of responsibilities in housework and childcare and their greater use of emotion-oriented ways to deal with stress during the COVID-19 epidemic.

In a study conducted on the COVID-19 epidemic in China, the prevalence of common anxiety disorder and depressive symptoms was found to be significantly higher in participants under 35 years old than those aged 35 years and over.<sup>3</sup> No significant difference was found between parent-child relationships in the studies which examined the parent and child relationship according to the age of parents before COVID-19.<sup>34-36</sup> The present study found the positive relationship scores of the parents in the 41–50 age group to be significantly higher than those of in the 31–40 age group. Individuals aged 40 years or older, who are transitioning from mid-adulthood to advanced adulthood, experience a cease and regression regarding their biological

development while maintaining mental wellbeing and quality social relationships.<sup>38</sup> Accordingly, parents aged 41–50 experience greater anxiety in relation to COVID-19 but have more positive relationships with their children than those aged 31–40. In addition, parents with children aged 4–6 years had significantly higher mean conflict scores, while those with children aged 14–18 were found to have higher mean positive relationship scores than those without children. Children aged 4–7 tend to comprehend events and situations through magical ideation (a concept used to describe a child's belief in case of irrelevant thoughts, wishes, or actions to have irrelevant outcomes regarding a particular subject). For instance, they may believe that their illness is caused by a certain thought or behavior.<sup>39</sup> Accordingly, the reasons why mothers and fathers with children aged 4–6 years conflict more than those with children aged 14–18 years may be due to the fact that children in this age group mostly engage in magical thinking, their inability to grasp facts related to COVID-19, or parents cannot provide them with information appropriate to their age. Another stressor for parents is that they cannot inform their children about COVID-19 in a way appropriate to their age.<sup>9</sup> In the present study, the higher level of conflict experienced by the parents with children aged 4 to 6 years may be attributed to the inability of the parents to provide their children with age-appropriate information about COVID-19.

The COVID-19 epidemic, which is the result of new and unknown virus, causes many uncertainties to prevail in the struggle in this process. Uncertainties cause individuals to experience many negative emotions, such as anxiety and stress. These negative emotions, thoughts, and situations have a negative effect on the individual's family and social relationships if they are not dealt with effectively.<sup>40</sup> COVID-19 caused sudden changes in individuals' and families' lives. Spinelli et al. (2020) reported that the parents who reported that they had a great difficulty in coping with the quarantine experienced higher levels of stress.<sup>15</sup> In the present study, a significant negative relationship was found between PSS and the positive relationship sub-dimension of the CPRS. Accordingly, less stress perceived by the parents meant a more positive relationship with their children. Therefore, supportive interventions during stressful life-events, such as epidemics, will positively affect coping with stress and familial relationships.



### **Limitations**

This study was limited by the difficulty of reaching individuals resulting from the management of COVID-19 process, as well as by certain factors cannot be intervened, a relatively small sample size, and some mothers and fathers who participated in the study not being the parents of the same child. Furthermore, the study was conducted online, using social media communication platforms such as Facebook, Instagram, WhatsApp etc., and in a short period of time. Additionally, since the measurement tools used were based on self-reported information from participants, the results only reflected parents' perceptions, attitudes, and behaviors. A larger sample size and investigating the effect of children's experiences on family interactions during the lockdown processes due to epidemics such as COVID-19 should also be studied in future research.

### **Conclusion**

To prevent the spread of infection during the COVID-19 epidemic, the Turkish government encouraged the public to isolate themselves and take necessary measures in line with WHO warnings. The majority of parent participants in the sample used in this study stated that the days spent "Staying Home" helped them build a closer relationship with their child, provided the opportunity to take better care of their children and helped their children to develop positive behaviors, such as hand washing and personal hygiene. However, parents experienced moderate stress and had a moderate positive relationship with their children during the days of "Staying Home". Mothers in particular stated that they experienced more stress and conflict with their children. It might be argued that during the lockdown ("stay home" days), parents experienced a moderate level of stress and had a moderately positive relationship with their children, and that especially mothers had

higher levels of stress and conflict with their children compared to fathers.

### **Implications for practice**

Media and public institutions prioritize physical health in the steps taken to prevent and control COVID-19 and focus less on its effects on psychosocial health. Psychosocially supporting interventions should be planned to support parents, and especially mothers, who assume most of the responsibilities concerning domestic work and childcare in situations that have an adverse effect on life, such as the epidemics. Informative guides should be prepared to help individuals cope with the stress they might experience throughout the epidemic, raising awareness and encouraging them to spend time with their family, and engage in certain activities. This critical period can be overcome and serious long-term negative results can be prevented if parents and children are supported appropriately by health and education professionals.

### **Conflict of interest**

The authors report no actual or potential conflicts of interest.

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### **Authors' contribution**

Data gathering and idea owner of this study: BT, AS. Study design: BT, AS, GD, DA. Data gathering: BT, AS, GD. Writing and submitting manuscript: BT, AS, GD, DA. Editing and approval of final draft: BT, AS, GD, DA.

### **Disclosure**

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