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# Experiences, emotions, and expectations of nurse mothers during the COVID-19 process



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#### ABSTRACT

*Purpose:* This study was designed to investigate the life experiences, emotions, and expectations of nurse mothers (NMs) during the COVID-19 process.

*Design and methods:* A phenomenological approach was used in this qualitative research. The study was carried out with 18 nurses who worked in a hospital, had at least one child in the 0–18 age group, and agreed to participate in the study. Study data were collected through individual in-depth interviews and analyzed by using the content analysis method.

*Results:* The analysis of the findings related to the experiences, emotions, and expectations of NMs during the COVID-19 process yielded three main themes, namely, difficulties experienced, emotions experienced, and coping.

*Conclusions*: Nurse mothers should be supported mentally during the pandemic period so that they can maintain a healthier relationship with their children.

*Practice implications:* When we consider that NMs have experienced negative emotions in the COVID-19 period, investigation of the problems they have experienced during the pandemic, and the situation they have been in and the development of strategies and coping methods to better manage the process will support NMs.

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#### Introduction

Despite the measures taken worldwide during the global pandemic that COVID-19 created, the number of infected cases has increased dramatically and brought the health systems of some countries to the brink of collapse (WHO, 2020b). During this period, nurses have played a central role in controlling the virus (Manzano García & Ayala Calvo, 2021).

The World Health Organization (WHO) declared a pandemic in March 2020 due to the COVID-19 virus and reported 118.319 cases and 4.292 deaths (WHO, 2020a). As of April 14, 2022, the total number of cases was determined as 500.186.525 (WHO, 2022).

The spread of the virus has brought many stressful situations together, such as psychological and physical health risks, the closure of many schools and businesses, and economic problems (End Violence Against Children, 2020). Practices, such as quarantines, social isolations, and travel restrictions have been put into effect rapidly around the world (Xiang et al., 2020a).

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The high prevalence, morbidity, and mortality rates of COVID-19 have increased the demand for healthcare services. Along with this, the need for nurses who are responsible for treating and caring for confirmed or suspected COVID-19 patients has increased (Adams & Walls, 2020). Healthcare workers are likely to be exposed to COVID-19 through direct or indirect contact with infected patients and other healthcare workers or as a result of ongoing community transmission (Bielicki et al., 2020). Although healthcare professionals acknowledge the increased risk of infection as part of their chosen profession, they may still be concerned about the transmission of the virus to family members, particularly to those who are elderly, are immunocompromised, or have chronic medical conditions (Adams & Walls, 2020; Xiang et al., 2020a). Therefore, they have had to isolate themselves from their families for fear that they can transmit the virus to their loved ones (Lai et al., 2020).

The pandemic process has caused nurses to experience feelings, such as fear, anxiety, burnout, uncertainty, and stigma (Çevik Aktura & Özden, 2020; Du et al., 2020; Kang et al., 2020; Liu, Zhai, et al., 2020; Sadati et al., 2021). Providing care and treatment for high-risk groups, busy working hours, having to use protective equipment while providing patient care, risk of disease transmission, changes in nurse-patient ratios due to changes in the working system, the possibility of transmitting the virus to other patients or their families are common causes of the problem (Çevik Aktura & Özden, 2020).

In a study, researchers reported that the incidence of general anxiety in healthcare workers before the COVID-19 pandemic was 34.7%, this rate increased during the pandemic, and that depression and sleep disorders increased more than what they were in the pre-pandemic period (Lv et al., 2020). A study conducted in China indicated that the symptoms of depression, insomnia, and anxiety were high in healthcare workers (Lai et al., 2020). In a study on the psychology of nurses providing care for COVID-19 patients, researchers stated that nurses were worried about patients and their relatives and used self-coping methods (Sun et al., 2020).

In this process, nurses have tried to continue their family life along with their clinical work. The precautions taken especially during the quarantine period have brought about some difficulties and undesirable situations in the busy working life and family life, which have especially affected the children. It has been observed that the fears experienced by children during the pandemic process have been manifested as tantrums, crying for no reason, irritability, and shouting (Alisinanoğlu et al., 2020).

Healthcare workers have worries about going home as they fear they can infect their families with the COVID-19 virus. Mothers, who are nurses have mixed feeling about caring for their families and performing their jobs. In addition, their children's need for psychosocial support, nutrition, or play may not be met (Levin, 2019).

A limited number of studies on determining the experiences, emotions, and expectations of NMs during the COVID-19 pandemic process have been found in the literature (Coşkun Şimşek & Günay, 2021). Therefore, this study was designed to determine the life experiences, emotions, and expectations of NMs during this process.

#### Methods

#### Research design

This is a qualitative study that used phenomenological methodology. In the study, an inductive approach was used to determine the life experiences, emotions, and expectations of nurse mothers during the COVID 19 process. This approach allowed reaching general judgments based on individual facts (Erdoğan et al., 2017).

#### Place and time of the research

The study was conducted in a university hospital, and the data were collected between 8 July 2020 and 10 September 2020.

#### The population and sample of the study

The population of the study consisted of NMs working in a university hospital located in a province in the Aegean region of Turkey.

The sample of the study, included nurses (NMs) who worked in the university hospital, had at least one child in the 0–18 age group, and agreed to participate in the study. The exclusion criterion of the study included nurse mothers who did not want to participate in the study. The purposive sampling method was used to determine the study sample.

The number of subjects to be included in the sample was determined according to the flow of data in the interviews. The inclusion of new subjects in the sample was terminated when the same concepts and processes started to appear and when no new data could be obtained anymore in the interviews. Accordingly, the interviews were completed with the participation of 18 NMs (Yıldırım & Şimşek, 2021). All of the nurse mothers included in the sample agreed to participate in the study. The acceptance rate in the study was 100%. Nurse mothers included in the sampling were from the intensive care units of pediatrics (NM 4, NM 5, NM 6), anesthesia (NM 14, NM 18), internal medicine

(NM 1, NM 7), neurosurgery (NM 10, NM 17), COVID (NM 11, NM 12), pediatric surgery (NM 2, NM 8) and pediatrics (NM 3, NM 9) and COVID services (NM 13, NM 15, NM 16).

#### Data collection tools

A "Descriptive Information Form" that was designed to collect data about sociodemographic characteristics of NMs and a "Semi-structured Nurse Interview Form" were used in the study.

#### The descriptive information form

It consists of 19 questions about sociodemographic characteristics and working conditions of NMs and the COVID-19 pandemic.

#### The semi-structured nurse interview form

This form consists of 11 open-ended questions about life experiences, feelings, and expectations of NMs in the COVID-19 pandemic. The questions were prepared by the researchers following a literature review (Hu et al., 2020; Liu, Zhai, et al., 2020; Sun, Wei, et al., 2020; Yeasmin et al., 2020). Research questions are given below (Table 4).

#### Data collection

The data of the study were collected through individual in-depth interviews. In-depth interviewing can provide information about the feelings, beliefs, experiences, attitudes, opinions, and complaints of individuals. A semi-structured nurse interview form was utilized in the study. This type of interview enables addressing all questions and aspects regarding the research problem through open-ended questions prepared in advance as well as those that arise during the interview (Erdoğan et al., 2017).

Before starting the interviews, the time and setting of the interview were planned with the NMs who agreed to participate in the interview, they were informed about the research, they were ensured the data obtained from them would be used anonymously, and a voluntary consent form was obtained from them. Interviews with NMs were held by the researcher face-to-face, and the questions on the interview form were asked to each person in the same format and order. The interviews were held in a quiet environment and were recorded with a voice recorder. The duration of the interviews varied between 20 and 30 min. In addition, the interviews were conducted by a single researcher to ensure a standard implementation. Researchers have been trained in qualitative research and focus group discussions. The data collection process continued until sigmilar concepts started appearing.

#### Evaluation of the data

Interview data were evaluated by using the content analysis method. After the interviews were completed, the recorded data were transcribed and analyzed by 3 separate researchers, and appropriate themes and codes were elicited. To ensure the consistency of the themes and codes determined, the new themes and codes were combined and rearranged. The codes were reorganized under themes by three nurse academicians studying in this field. The obtained data were analyzed by using the MAXQDA 2020 software. A frequency table was obtained for each code. A word cloud was created based on the frequency table (Fig. 1). The data were described, interpreted, and reported according to the codes and themes created.

#### Validity and reliability of the study

Creswell and Miller criteria were taken into account for validity and reliability in the study. The concepts of internal validity, credibility, external validity, transferability were used. The interviews were recorded on a voice recorder to ensure the credibility of the research. In addition, the researcher took observation notes. Transferability means that



Fig. 1. The word cloud of data collected in the research.

research results cannot be generalized but can be adapted to such environments. The qualitative findings of the research were presented in detail so that they can be compared with similar research findings. Consistency means recognizing the variability of the cases and reflecting this variability in the study in a consistent way (Creswell & Miller, 2000; Yıldırım & Şimşek, 2021).

#### Ethical approval of the research

This research was conducted in accordance with the principles of the Declaration of Helsinki. Written permission of the Non-Interventional Clinical Research Medical Ethics Committee of a university (date: June 23, 2020 and issue: 12) and the University Hospital Directorate was obtained to conduct the study.

In addition, NMs who volunteered to participate in the study were informed about the study, and their written consent was obtained. NMs were informed that their participation in the study was voluntary and that they could withdraw from the study at any time.

#### Results

The mean age of NMs was 34.38, 72.2% (n = 13) of them had an undergraduate degree, 66.6% (n = 12) had only one child (Table 1).

The mean work experience of NMs in the profession was 12.11 years, and 77.77% (n = 14) of them stated that they gave care/treatment to patients with suspicion of COVID-19. Also, 61.1% (n = 11) of the NMs stated that they stayed with their families during the COVID-19 pandemic but could not have close interactions with them, and 27.7% (n = 5) stated that they sent their children to their relatives and could only get into contact with them remotely (Table 2).

#### Table 1

Findings on	the	descriptive	characteristics	of	NMs.
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Participant	Age	Educational Status	Number of Children	Child's Age
NM 1	37	Master	1	6
NM 2	28	Licence	2	3-6
NM 3	39	Master	2	2-5
NM 4	41	Licence	1	16
NM 5	42	Licence	3	7-14-17
NM 6	31	Licence	1	3
NM 7	42	Licence	2	12-17
NM 8	27	Licence	1	4
NM 9	26	High school	1	4
NM 10	29	Licence	1	2
NM 11	26	High school	1	4
NM 12	48	Licence	3	14-21-26
NM 13	37	Licence	1	6
NM 14	45	Licence	2	4-12
NM 15	29	Master	1	5
NM 16	33	Licence	1	2
NM 17	32	Licence	1	4
NM 18	27	Licence	1	2

In the analysis of the findings related to the experiences, emotions, and expectations of NMs, three main themes were determined, namely, difficulties experienced, emotions experienced, and coping (Table 3).

#### Theme 1: Difficulties experienced

The theme, difficulty experienced, was discussed under two categories: difficulties experienced by mothers and difficulties experienced by children.

#### Difficulties experienced by mothers

This category consists of six codes: social isolation, hygiene practices, inability to hug/contact children, having difficulties in the mother role, burnout, and stigma.

In the social isolation code, NMs stated that they were separated from their families and children. Regarding this code, one of the NMs said, "I saw my child once every two months. I lived completely away from my family and stayed in a dormitory during this period. I missed eating at the same table. ..." (NM 11, 26 Year).

In the hygiene practices code, NMs stated that they were more careful about their personal hygiene after clinical practice. One of the NMs said, "As soon as I get home, I take a shower and clean. Despite this, I have always been nervous when approaching my children. I felt a pang of conscience while trying to stop my child's crying for hours because I did not allow him to hug me happily when I came home" (NM 2, 28 Year).

In the code of inability to hug/contact children, NMs stated that they stayed away from their families because they thought that they might have been exposed to the virus and thus might infect their family members. Regarding this code, one of the NMs said, "*I avoided contact with my child as much as possible in the pandemic. As I avoided contact as much as possible, he wanted to hug me even more*" (NM 17, 32 Year).

In the code of difficulty in fulfilling the maternal role, NMs stated that their family order was disrupted, they could not establish close contact with their children, and they had to follow their children's development from afar. One of the NMs said, "COVID-19 has affected our family life badly. When the cases have increased, I have got worried about my family and had to send my child to my mother. I cannot be there for my child when he needs me the most. I am anxious because I cannot fully fulfill my role as a mother" (NM 16, 33 Year).

In the burnout code, NMs expressed their burnout due to the inability to provide two-way communication between work and family life during the COVID-19 pandemic. One of the NMs said, "*I can't cope... My exhaustion is increasing every other day..*" (NM 14, 45 Year).

In the stigma code, NMs stated that they were stigmatized as potential COVID-19 virus carriers by society. One of the NMS stated, "The attitudes of society towards me because I am a nurse and their keeping away from me disturbed me..." (NM 12, 48 Year).

#### Difficulty experienced by children

This category consists of five codes: social restriction/isolation, change in routines, changes in games, regression, and falling behind on education.

In the social restriction/isolation code, NMs reported that they were adversely affected due to the change in their children's routines and social distancing. One of the NMs said, *"We cannot go out of the house, and my child can only go to the garden of our house. He cannot spend time with his friends and suffers from loneliness"* (NM 10, 29 Year).

In the code of changes in routines, NMs said that staying at home all the time caused behavioral changes in children. One of the NMs said, "Because my children are at home all the time and they can't spend time, their TV and phone usage times have increased" (NM 7, 42 Year).

In the changes in games code, NMs reported that their children had problems due to technology use and that the content of their games changed. Regarding this code, one of the NMS said, "My child is bored of spending time at home all the time, his grandmother can't keep up with his energy, and they got old, too. We used to not allow him to play

#### Table 2

Findings regarding professional characteristics and familial relationships of NMs in the COVID-19 pandemic.

Participant	Total work experience	Status of staying with family members during the COVID-19 pandemic	Frequency of seeing the family during the COVID-19 pandemic	Status of giving care/treatment to patients with suspicion of COVID-19
NM 1	15 year	I sent my child to my relatives- and I am staying at home	Once every two weeks	Yes
NM 2	10 year	I sent my child to my relatives- and I am staying at home	Once a week	Yes
NM 3	15 year	I am staying with my family	Everyday	No
NM 4	15 year	I am staying with my family	Everyday	Yes
NM 5	21 year	I am staying with my family	Everyday	Yes
NM 6	7 year	I am staying with my family	Everyday	Yes
NM 7	20 year	I am staying with my family	Everyday	Yes
NM 8	8 year	I am staying with my family	Everyday	Yes
NM 9	7 year	I am staying with my family	Everyday	No
NM 10	5 year	I am staying with my family	Everyday	Yes
NM 11	2 year	I am staying in hostel	Once every two months	Yes
NM 12	27 year	I am staying with my family	Everyday	Yes
NM 13	12 year	I sent my child to my relatives- and I am staying at home	Once every two weeks	Yes
NM 14	25 year	I am staying in hostel	Once a month	Yes
NM 15	7 year	I sent my child to my relatives- and I am staying at home	Once a month	Yes
NM 16	8 year	I sent my child to my relatives- and I am staying at home	Once every two months	Yes
NM 17	8 year	I am staying with my family	Everyday	No
NM 18	6 year	I am staying with my family	Everyday	No

games on the phone when we were together, but now he started to spend time on the phone and television due to COVID-19"(NM 13, 37 Year).

In the regression code, NMs stated that the developmental periods of their children were adversely affected during the COVID-19 pandemic. One of the NMs about this code said, "As the number of cases has increased, I have had to send my child to my parents. My child had gained progress in toilet training; unfortunately, we broke up, and this situation

#### Table 3

Themes.

Themes	Category	Codes	Frequency
1.Difficulties experience	1.1.Difficulties experienced by mothers	Social isolation	14
	I I I I I I I I I I I I I I I I I I I	Hygiene practices	13
		Inability to hug/contact children	12
		Having difficulties in the mother role	10
		Burnout	6
		Stigma	1
	1.2. Difficulties	Social	9
	experienced by children	restriction/isolation	
		Change in routines	8
		Changes in games	6
		Regression	4
		Falling behind on	2
		education	
2.Emotions	2.1. Emotions	Fear	18
Experienced	experienced by mothers		
		Longing	18
		Stress	6
		Depression	5
		Guilt	5
	by children	Fear	9
		Longing	7
		Anger-aggressive	6
		Loneliness	3
		Unhanniness	3
3 Coning	3.1 Mothers' coping	Family support	12
or coping	Stri motnero coping	Taking precautions	12
		Ignoring	5
		Self-motivation	5
	3.2. Children's coping	Technology	5
		Constant questioning of the process	4
		Crying episodes	3

affected him a lot, and now he is wearing diapers again. I cannot be there for my child when he needs me the most" (NM 16, 33 Year).

In the code of falling behind on education, NMs reported that the education of their children was negatively affected by the distance education process. Regarding this code, one of the NMs stated, "*I am afraid that falling behind on the school will create reluctance towards his education*" (NM 15, 29 Year).

#### Theme 2: Emotions experienced

The theme, emotions experienced, was discussed under two categories: emotions experienced by mothers and emotions experienced by children.

#### Emotions experienced by mothers

This category consists of five codes: fear, longing, stress, depression, and guilt.

In the fear code, NMs stated that they were afraid that they might have been exposed to the virus and that they might infect their family and people close to them. Regarding this code, one of the NMs stated,

Table 4	
Research	questions.

Question Numbers	Questions
1	What do you think about COVID-19?
2	As a nurse mother, how did you feel when you first learned about
	COVID-19? How do you feel right now in this process?
3	How has COVID-19 impacted your life as a nurse mother? (Family
	communication, maternal role, child care, changes in family roles, etc.)
4	What difficulties have you encountered as a nurse mother during this
	process?
5	How can you cope with the difficulties as a nurse mother during this
	period?
6	What are your experiences with the care of your child? What were your practices regarding your children during the COVID-19 pandemic after the clinic? What have you experienced if you have been separated?
7	What are your concerns and anxieties about your children during the COVID-19 pandemic?
8	What have you missed doing with your children during the COVID-19 pandemic?
9	What has changed in your children's lifestyles during the COVID-19 pandemic?
10	What are your children's feelings during the COVID-19 pandemic?
11	What do you expect from life?

"During the pandemic period, I have been afraid that I won't be able to protect my children while touching and saving the lives of others..." (NM 2, 28 Year).

In the longing code, NMs stated that the COVID-19 period was tough, they had to stay away from their families and children, and they had to keep their distance from their families even when they spent time with them. Regarding this code, one of the NMs said, *"They say that whoever experiences it knows it... My psychology has been turned upside down. I cannot see my family because I serve pandemic patients. I have never been this far apart from my child. I miss him so much"* (NM 13, 37 Year).

In the stress code, NMs stated that they were stressed due to the social limitations and uncertainty brought about by COVID-19. Regarding this code, one NM said, "Being unable to take my child to the park often and warning him not to touch his mask when I do have become difficult and stressful" (NM 15, 29 Year).

In the depression code, NMs stated that they were adversely affected psychosocially due to the long working hours brought by the pandemic, working with protective equipment, being away from social support sources and their families, and the risk of transmission of the disease. Regarding this code, one of the NMs said, *"I'm exhausted. We're having trouble breathing due to overalls, masks, goggles, and gloves"* (NM 11, 26 Year).

In the guilt code, NMs thought that they could not fully fulfill their role functions as a mother. Regarding this code, one of the NMs said, "*I feel guilty because I cannot spare enough time for home and work and my child…*" (NM 18, 27 Year).

#### Emotions experienced by children

This category consists of five codes: fear, longing, anger-aggressive reactions, loneliness, unhappiness.

In the fear code, NMs stated that they were separated from their children, the children had difficulty in making sense of what was happening around them, and that they were negatively affected psychosocially. Regarding this code, one of the NMs said, "During the pandemic period, my child has been afraid because he has not been able to make sense of what is happening around him" (NM 8, 27 Year).

In the longing code, NMs stated that their children longed for them because they could not have close contact with their families due to their profession. Regarding this code, one of the NMs said, *"The pandemic process has made me and my family live in separate cities. After the clinical practice, I have not been able to see my child. Being apart has increased our longing for each other"* (NM 16, 33 Year).

In the anger-aggressive reactions code, NMs stated that their children exhibited abnormal reactions because they could not access resources where they could meet their needs independently. Related to this code, one of the NMs said, "My child is normally calm. Living away from family life has made him an aggressive child. He has developed a behavior of throwing toys" (NM 16, 33 Year).

In the loneliness code, NMs reported that their children suffered from loneliness due to compulsory isolation and reduced social relationships during the pandemic. One NM said, "My child has felt lonely, unloved, and abandoned during this period" (NM 1, 37 Year).

In the unhappiness code, NMs stated that their children were away from their social circles and were adversely affected by lockdowns. Regarding this code, a nurse mother said, "*My son's social life has been restricted. He cannot go to the park or the garden. He is unhappy because he is always at home*" (NM 17, 32 Year).

#### Theme 3: Coping

The theme, coping, was discussed under two categories: mothers' coping and children's coping.

#### Mothers' Coping

This category consists of four codes: family support, ignoring, taking precautions, and self-motivation.

In the family support code, NMs stated that they were separated from their children during the COVID-19 pandemic, so their family members took care of their children. Regarding this code, one of the NMs said, "COVID-19 has literally broken our family. My in-laws take care of my children. I communicate with my children thanks to video chat utility" (NM 14, 45 Year).

In the ignoring code, NMs stated that they tried to maintain their well-being by ignoring the physical and mental fatigue caused by COVID-19. Regarding this code, one nurse said, *"I am psychologically devastated, but I try to ignore the problems"* (NM 7, 42 Year).

In the taking precautions code, NMs reported that they paid attention to personal hygiene rules and social isolation to protect themselves from COVID-19. Regarding this code, one NM said, "While doing my job, I approach every patient as if they have COVID-19. I have taken the necessary precautions" (NM 10, 29 Year).

In the self-motivation code, NMs stated that they resisted the stress that COVID-19 created in their lives with the thought that the pandemic would end. Regarding this code, one of the NMs said, "During this period, panic and fear have taken me captive. I feel as if there will be no tomorrow... I have made the process easier by telling myself that I can overcome it" (NM 4, 41 Year).

#### Children's coping

This category consists of three codes: technology commitment, constant questioning of the process, and crying episodes.

In the technology commitment code, NMs stated that their children had problems due to technology use. Regarding this code, one NM said "*My child got away from books and games and became addicted to phones and tablets*" (NM 4, 41 Year).

In the constant questioning of the process code, NMs stated that their children constantly asked questions because of the uncertainty of the situation they were in and because they did not understand what was going on around them. Regarding this code, one NM said, "My child is constantly asking why we are wearing masks, why we are not going to the playground, why I don't kiss him" (NM 6, 31 Year).

In the crying episodes' code, NMs stated that their children used crying episodes as a method of coping with their fears or suppressing or eliminating the situation they were in because they could not socialize and spend their energy and they were separated from their parents due to lockdowns. Regarding this code, one NM said, *"Fear of abandonment and crying episodes have peaked in my child during this period"* (NM 1, 37 Year).

#### Discussion

The results obtained from this research indicated that the changes brought about by the pandemic had negative effects on nurse mothers and their children.

#### Difficulties experienced

#### Difficulties experienced by mothers

In the study, NMs stated that they were separated from their families and children and could not have close contact with them for fear of transmitting the virus to them during the COVID-19 pandemic. This possibly occurred because they wanted to protect their families. Studies indicated that most health workers isolated themselves from their families so that they would not infect them with viruses (Galehdar et al., 2020; Lorenzo & Carrisi, 2020; Terkeş & Yamaç, 2021).

In the study, NMs stated that they could not establish close contact with their children during the COVID-19 pandemic, they had to monitor their children's development from afar, and that they, therefore, had difficulty in fulfilling their maternal role. Similarly, Çelik (2021) stated that nurses and their children were negatively affected by the pandemic process and that they felt that their parental roles were inadequate. This is thought to be due to NMs' instinct for protecting their children. In the study, NMs reported that they were more careful in their personal hygiene after clinical practice but that they experienced burnout due to the uncertainty of the disease, the fear of being infected, and the inability to provide two-way communication between work and family life. In studies similar to our research, it was determined that health workers experienced emotional exhaustion during the pandemic (Chen et al., 2021; Pappa et al., 2021). It is thought that the difficult conditions of the pandemic became more wearisome for NMs.

In the study, NMs stated that they were stigmatized by society as a potential carrier of the COVID-19 virus. In a study on non-healthcare workers during the COVID-19 pandemic in the USA and Canada, more than a quarter of respondents said that healthcare workers should be restricted in their freedom, they should not be allowed to go out in public, they should be isolated from the community, and that they should be separated from their families and more than a third of the respondents stated that they would avoid contact with healthcare workers for fear of contracting COVID-19 (Taylor et al., 2020).

#### Difficulties experienced by children

In the study, it was found that children of NMs experienced social isolation in the COVID-19 pandemic, their routines and the games they played changed, and that they experienced regression according to age groups and fell behind on their schools. Similarly, studies have shown that coronavirus has negative effects on children's social life, education, physical, and mental health (Courtney et al., 2020; Liu et al., 2020a; Phelps & Sperry, 2020; Yeasmin et al., 2020). A study was conducted to explore the behavioral and emotional problems observed in children during the COVID-19 pandemic. Findings revealed the following range of problems reported in children that included: children's excessive attachment to their mothers, irritability, anxiety, sleep problems, constantly asking questions about the virus, having nightmares, loss of appetite and enuresis (liao et al., 2020). It is thought that these situations were caused by children's separation from their usual routines, inability to spend their energy, and the expression of psychological distress.

In a study, it was reported that children had difficulty focusing and maintaining their attention while doing something in the COVID-19 quarantine (Üstündağ, 2021). Another study indicated that their sleep habits were affected; for example, they woke up many times during the night and particularly had difficulty falling asleep (Segre et al., 2020). This is thought to be due to the uncertainty in the environment causing a feeling of insecurity in children.

#### Emotions experienced

#### Emotions experienced by mothers

In the study, NMs felt fear, longing, stress, depression, and guilt during the COVID-19 pandemic. This is thought to have stemmed from the increased workload of NMs in addition to using protective equipment and the possibility of exposure to positive cases due to the uncertainty of the disease. In addition, during this process, NMs were negatively affected psychologically due to separation from their families and worries that they might spread the disease to them. Research indicated that nurses had a fear of transmitting the virus to their families (Liu, Zhai, et al., 2020; Sadati et al., 2021) and experienced stress, anxiety, depression, guilt, and loneliness during the COVID-19 pandemic (Du et al., 2020; Kang et al., 2020; Nelson et al., 2021). In another study which was conducted in China, it was determined that health personnel experienced psychological problems during the COVID-19 pandemic (Dong et al., 2020).

In the study, NMs stated that they had hard times during the COVID-19 period, they could not establish close contact with their families and children, and that they missed them. Contrary to the findings of the study, Başaran and Aksoy (2020) and Özyürek and Çetinkaya (2021) stated that the epidemic process had a positive effect on family life and increased interaction within the family.

#### Emotions experienced by children

In the study, NMs stated that their children had difficulty in making sense of what was happening in their environment and that they suffered from fear and loneliness due to the compulsory isolation and decrease in social relationships. They also reported that they could not get in close contact with their parents and could not meet their needs independently. For all these reasons, they stated that their children exhibited aggressive-angry reactions, were unhappy, and were negatively affected psychosocially. These suppressed feelings are thought to arise from the fact that children were separated from their usual social environment. Similar to our research, Yeasmin et al. (2020) found that the COVID-19 epidemic had a negative impact on the mental health of children. Üstündağ (2021), on the other hand, reported that children missed spending their days with their friends, doing the activities they usually did, doing sports, and participating in extracurricular activities.

A study investigated the impact of home quarantine on children's mental health and found that one in five children in China suffered from depression or anxiety, or both (Dunleavy, 2020). In another study conducted to examine the emotional states of the parents regarding the COVID-19 process and the stress level of their children, it was revealed that parents had a high level of negative affect and that the negative emotions of the parents increased the level of stress perceived by the children (Yalçın et al., 2020). In the research conducted by Xie et al. (2020), high rates of depression and anxiety symptoms were reported in children during the COVID-19 period. It is thought that the compulsory isolation at home and the resulting decreased social interaction increased the negative emotions of children.

#### Coping

#### Mothers' coping

In the current study, NMs stated that they protected their physical and mental well-being and motivated themselves by receiving family support, ignoring the situation they were in, and paying attention to personal hygiene rules and social isolation during the COVID-19 pandemic. Similar to the findings of our research, in the study on the social-psychological impact of the COVID-19 pandemic on healthcare workers in China, having a good family relationship and coping skills were found to be among the protective factors associated with psychosocial impact (Dong et al., 2020). Kang et al. (2020) found that most health personnel experienced mental health problems during the COVID-19 period and received counseling or psychotherapy.

In the study examining the psychosocial impact levels and related factors in healthcare workers during the COVID-19 pandemic, it was shown that social support against the negative effects of stress, self-efficacy, active coping styles, and psychological resilience functioned as protective factors (Uyurdağ et al., 2021). In the research of Enli Tuncay et al. (2020), adequate access to equipment, appropriateness of hygiene conditions, balanced working-resting hours, social and emotional support relationships between pandemic team members, and supportive services provided by management units were reported as protective factors affecting the psychosocial health of healthcare workers. The traditionally strong family ties and the continuity of support systems in Turkish society may have been effective in helping nurse mothers to cope with the pandemic process.

#### Children's coping

NMs in our study reported that their children constantly asked questions because of the uncertainty of the situation and because they did not understand what was going on around them and that they resorted to bursts of anger and crying episodes to suppress their feelings experienced due to separation from their parents. According to some studies, children experienced irritability, crying, and tantrums during the pandemic period (Alisinanoğlu et al., 2020) and they wanted to sleep with their parents to cope with these situations (Pisano et al., 2020). In this situation, it is thought that children's delayed or accumulated desires were discharged through outbursts of anger.

Children may fear when they do not understand or misinterpret what they have heard. For this reason, parents should inform children about COVID-19 in accordance with their developmental levels, without going into too much detail (Kaba & Sari, 2020). In the research conducted by Özyürek and Çetinkaya (2021), it was determined that during the pandemic period, parents informed their children about the pandemic, taught them to wear masks, did not reflect their feelings about the pandemic to them, and played games with them. In another study, it was determined that the interaction times of parents who had to stay at home during the pandemic increased with the increase in the games they played with their children, and positive changes occurred in family relationships (Başaran & Aksoy, 2020).

In the study, an increase was found in children's use of technology. The results of the study show similarities with the literature (Eyimaya & Irmak, 2021; Özyürek & Çetinkaya, 2021; Pietrobelli et al., 2020; Xiang, Zhang, & Kuwahara, 2020). This situation is thought to be the result of staying at home all the time and a lack of socialization.

#### Practice implications

During the COVID 19 pandemic, while nurse mothers have been worried that they and their families will contract the disease, they have provided care for their patients and tried to prevent the spread of the disease. For this reason, it is very important to protect and support the mental and physical health of nurse mothers. For nurses to perform their duties in safer and healthier working conditions, it should be ensured that infection control and prevention measures, and occupational health and safety measures are taken, enough and quality health personnel are employed, and a clinical rotation method is applied. In addition, strategies and coping methods should be developed to investigate the problems, feelings, and situations experienced by nurses, who are at the forefront of the pandemic and to better manage the process. Nurse mothers should be provided with psychosocial support and they should be directed to mental health counseling.

Lack of information about the virus, excessive exposure to the media, and receiving misinformation from the environment can cause children to constantly ask questions about the COVID-19 pandemic. For this reason, parents should inform their children about COVID 19 without going into detail in accordance with their developmental level. For the healthy development of children during the pandemic, they should be allowed to rest, study and read for fun, establish social and family connections, engage in physical activities, and perform household chores.

#### Limitations of the research

The research can be generalized to the NMs working at the University Hospital, where the interviews were held. In addition, it is limited to the questions in the descriptive information form and the nurse interview form used to obtain the data. Another limitation of the research is that it was carried out at a certain time. Another limitation of the research refer to the fact that this was a cross-section research design wherein data was collected within a defined period of time.

#### Conclusions

The findings of the study show that the COVID-19 pandemic has adversely affected nurse mothers, their children, and their families. It has been determined that nurses involved in the treatment and care of COVID-19 patients stayed away from their families due to long working hours and fear of infecting their family members, and they are exhausted, tired, and exposed to stigma. For this reason, the mental health of nurse mothers should be protected and maintained so that they can continue having healthier relationships with their children and family members.

#### Author statement

SA,GT conceptualized the study and organized the data collection. SA and GT wrote the first draft of the manuscript. SA and GT run the analyses and wrote the results section. SA and GT contributed to revision of the final version of the manuscript.

#### **Declaration of Competing Interest**

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

#### References

- Adams, J. G., & Walls, R. M. (2020). Supporting the health care workforce during the COVID-19 global epidemic. *Jama*, 323(15), 1439–1440.
- Alisinanoğlu, F., Türksoy, E., & Karabulut, R. (2020). Family views on childhood fears during the pandemic process. International Journal Of Humanities And Education, 6(14), 547–568. Retrieved from https://dergipark.org.tr/en/pub/ijhe/issue/57645/782570.
- Başaran, M., & Aksoy, A. B. (2020). Parents' views of on the family lives in the corona-virus (COVID-19) outbreak process. Journal of International Social Research, 13(71), 667–681. https://doi.org/10.17719/jisr.10589.
- Bielicki, J. A., Duval, X., Gobat, N., Goossens, H., Koopmans, M., Tacconelli, E., & Van der Werf, S. (2020). Monitoring approaches for health-care workers during the COVID-19 pandemic. *The Lancet Infectious Diseases.*, 20(10), e261–e267. https://doi.org/10. 1016/S1473-3099(20)30458-8.
- Çelik, M. Y. (2021). The dual role of nurses as mothers during the pandemic period: Qualitative study. Early Child Development and Care, 1-11. https://doi.org/10.1080/ 03004430.2021.1917561.
- Çevik Aktura, S., & Özden, G. (2020). Psychological effects of the epidemic: COVID-19 nurses. Journal of International Social Research, 13(73), 1146–1151.
- Chen, R., Sun, C., Chen, J. J., Jen, H. J., Kang, X. L., Kao, C. C., & Chou, K. R. (2021). A largescale survey on trauma, burnout, and posttraumatic growth among nurses during the COVID-19 pandemic. *International Journal of Mental Health Nursing*, 30(1), 102–116. https://doi.org/10.1111/inm.12796.
- Coşkun Şimşek, D., & Günay, U. (2021). Experiences of nurses who have children when caring for COVID-19 patients. *International Nursing Review*, 68(2), 219–227. https:// doi.org/10.1111/inr.12651.
- Courtney, D., Watson, P., Battaglia, M., Mulsant, B. H., & Szatmari, P. (2020). COVID-19 impacts on child and youth anxiety and depression: Challenges and opportunities. *The Canadian Journal of Psychiatry*, 65(10), 688–691. https://doi.org/10.1177/0706743720935646.
- Creswell, J. W., & Miller, D. L. (2000). Determining validity in qualitative inquiry. *Theory Into Practice*, 39(3), 124–130. https://doi.org/10.1207/s15430421tip3903\_2.
- Dong, Z. Q., Ma, J., Hao, Y. N., Shen, X. L., Liu, F., Gao, Y., & Zhang, L. (2020). The social psychological impact of the COVID-19 pandemic on medical staff in China: A crosssectional study. *European Psychiatry*, 63(1), 1–8. https://doi.org/10.1192/j.eurpsy. 2020.59.
- Du, J., Dong, L., Wang, T., Yuan, C., Fu, R., Zhang, L., ... Li, X. (2020). Psychological symptoms among frontline healthcare workers during COVID-19 outbreak in Wuhan. *General Hospital Psychiatry*, 67, 144. https://doi.org/10.1016/j.genhosppsych.2020.03.011.
- Dunleavy, B. P., & United Press International (2020). 20% of children on lockdown in China suffer depression, anxiety, study finds. Retrieved from https://www.upi.com/ Health\_News/2020/04/24/20-of-children-on-lockdown-in-China-suffer-depressionanxiety-study-finds/5291587741928/ Accessed June 19, 2021.
- End Violence Against Children (2020). Protecting children during the COVID-19 outbreak: Resources to reduce violence and abuse. https://www.end-violence.org/protectingchildren-during-covid-19-outbreak Accessed June 23, 2021.
- Enli Tuncay, F., Koyuncu, E., & Özel, Ş. (2020). A review of protective and risk factors affecting psychosocial health of healthcare workers in pandemics. *Ankara Medical Journal*, 20(2), 488–504. https://doi.org/10.5505/amj.2020.02418.
- Erdoğan, S., Nahcivan, N., & Nihal, M. N. (Eds.). (2017). Research process, practice and critical in nursing (3rd ed.). Ankara: Nobel publication.
- Eyimaya, A.Ö., & Irmak, A. Y. (2021). Relationship between parenting practices and children's screen time during the COVID-19 pandemic in Turkey. *Journal of Pediatric Nursing*, 56, 24–29. https://doi.org/10.1016/j.pedn.2020.10.002.
- Galehdar, N., Toulabi, T., Kamran, A., & Heydari, H. (2020). Exploring nurses' perception of taking care of patients with coronavirus disease (COVID-19): A qualitative study. *Nursing Open*, 8(1), 171–179. https://doi.org/10.1002/nop2.616.
- Hu, D., Kong, Y., Li, W., Han, Q., Zhang, X., Zhu, L. X., ... Zhu, J. (2020). Frontline nurses' burnout, anxiety, depression, and fear statuses and their associated factors during the COVID-19 outbreak in Wuhan, China: A large-scale cross-sectional study. *EClinicalMedicine*, 24, Article 100424. https://doi.org/10.1016/j.eclinm.2020.100424.
- Jiao, W. Y., Wang, L. N., Liu, J., Fang, S. F., Jiao, F. Y., Pettoello-Mantovani, M., & Somekh, E. (2020). Behavioral and emotional disorders in children during the COVID-19 epidemic. *The Journal of Pediatrics*, 221, 264. https://doi.org/10.1016/j.jpeds.2020.03.013.
- Kaba, D., & Sari, B. A. (2020). Acute stress disorder with panic episodes induced by exposure to COVID-19 outbreak news in a child. *Dusunen Adam*, 33(2), 221–222.

- Kang, L., Ma, S., Chen, M., Yang, J., Wang, Y., Li, R., ... Liu, Z. (2020). Impact on mental health and perceptions of psychological care among medical and nursing staff in Wuhan during the 2019 novel coronavirus disease outbreak: A cross-sectional study. *Brain, Behavior, and Immunity*, 87, 11–17. https://doi.org/10.1016/j.bbi.2020.03.028.
- Lai, J., Ma, S., Wang, Y., Cai, Z., Hu, J., Wei, N., ... Tan, H. (2020). Factors associated with mental health outcomes among health care workers exposed to coronavirus disease 2019. JAMA Network Open, 3(3), e203976. https://doi.org/10.1001/jamanetworkopen. 2020.3976.
- Levin, J. (2019). Mental health Care for Survivors and Healthcare Workers in the aftermath of an outbreak. In D. Huremović (Ed.), *Psychiatry of pandemics* (pp. 127–141). Switzerland AG: Springer Nature. https://doi.org/10.1007/978-3-030-15346-5\_11.
- Liu, J. J., Bao, Y., Huang, X., Shi, J., & Lu, L. (2020). Mental health considerations for children quarantined because of COVID-19. *The Lancet Child & Adolescent Health*, 4(5), 347–349. https://doi.org/10.1016/S2352-4642(20)30096-1.
- Liu, Y. E., Zhai, Z. C., Han, Y. H., Liu, Y. L., Liu, F. P., & Hu, D. Y. (2020). Experiences of frontline nurses combating coronavirus disease-2019 in China: A qualitative analysis. *Public Health Nursing*, 37(5), 757–763. https://doi.org/10.1111/phn.12768.
- Lorenzo, D., & Carrisi, C. (2020). COVID-19 exposure risk for family members of healthcare workers: An observational study. *International Journal of Infectious Diseases*, 98, 287–289. https://doi.org/10.1016/j.ijid.2020.06.106.
- Lv, Y., Zhang, Z., Zeng, W., Li, J., Wang, X., & Luo, G. Q. (2020). Anxiety and depression survey of Chinese medical staff before and during COVID-19 Defense. https://doi.org/10.2139/ ssrn.3551350 (Accessed 3 April 2022).
- Manzano García, G., & Ayala Calvo, J. C. (2021). The threat of COVID-19 and its influence on nursing staff burnout. *Journal of Advanced Nursing*, 77(2), 832–844.
- Nelson, H., Hubbard Murdoch, N., & Norman, K. (2021). The role of uncertainty in the experiences of nurses during the Covid-19 pandemic: A phenomenological study. *Canadian Journal of Nursing Research*, 53(2), 124–133. https://doi.org/10.1177/ 0844562121992202.
- Özyürek, A., & Çetinkaya, A. (2021). The examination of family and parent-child relationships during COVID-19 pandemic. *Çağ University Journal Of Social Sciences*, 18(1), 96–106 Retrieved from https://dergipark.org.tr/en/pub/cagsbd/issue/63182/959761.
- Pappa, S., Athanasiou, N., Sakkas, N., Patrinos, S., Sakka, E., Barmparessou, Z., ... Katsaounou, P. (2021). From recession to depression? Prevalence and correlates of depression, anxiety, traumatic stress and burnout in healthcare workers during the COVID-19 pandemic in Greece: A multi-center, cross-sectional study. *International Journal of Environmental Research and Public Health*, 18(5), 2390. https://doi.org/10. 3390/ijerph18052390.
- Phelps, C., & Sperry, L. L. (2020). Children and the COVID-19 pandemic. Psychological Trauma Theory Research Practice and Policy, 12(S1), S73. https://doi.org/10.1037/ tra0000861.
- Pietrobelli, A., Pecoraro, L., Ferruzzi, A., Heo, M., Faith, M., Zoller, T., & Heymsfield, S. B. (2020). Effects of COVID-19 lockdown on lifestyle behaviors in children with obesity living in Verona, Italy: A longitudinal study. *Obesity*, 28(8), 1382–1385. https://doi. org/10.1002/oby.22861.
- Pisano, L., Galimi, D., & Cerniglia, L. A. (2020). Qualitative report on exploratory data on the possible emotional/behavioral correlates of Covid – 19 lockdown in 4–10 years children in Italy. https://doi.org/10.31234/osf.io/stwbn.
- Sadati, A. K., Zarei, L., Shahabi, S., Heydari, S. T., Taheri, V., Jiriaei, R., ... Lankarani, K. B. (2021). Nursing experiences of COVID-19 outbreak in Iran: A qualitative study. *Nursing Open*, 8(1), 72–79. https://doi.org/10.1002/nop2.604.

- Segre, G., Campi, R., Scarpellini, F., Clavenna, A., Zanetti, M., Cartabia, M., & Bonati, M. (2020). Interviewing children: The impact of the COVID -19 quarantine on children's changes in routine and psychological distress and changes in routine. *BMC Pediatrics*, 21(1), 1–11. https://doi.org/10.21203/rs.3.rs-64515/v1.
- Sun, N., Shi, S., Jiao, D., Song, R., Ma, L., Wang, H., ... Wang, H. (2020). A qualitative study on the psychological experience of caregivers of COVID-19 patients. *American Journal of Infection Control*, 48(6), 592–598. https://doi.org/10.1016/j.ajic.2020.03.018.
- Sun, N., Wei, L., Shi, S., Jiao, D., Song, R., Ma, L., ... Wang, H. (2020). A qualitative study on the psychological experience of caregivers of COVID-19 patients. *American Journal of Infection Control*, 48(6), 592–598.
- Taylor, S., Landry, C. A., Rachor, G. S., Paluszek, M. M., & Asmundson, G. J. (2020). Fear and avoidance of healthcare workers: An important, under-recognized form of stigmatization during the COVID-19 pandemic. *Journal of Anxiety Disorders*, 75, Article 102289. https://doi.org/10.1016/j.janxdis.2020.102289.
- Terkeş, N., & Yamaç, S. U. (2021). Determine the changes in the family processes of married nurses and midwives working with Covid-19 patients. *Journal of General Health Sciences (JGEHES)*, 3(2), 102–111. https://doi.org/10.51123/jgehes.2021.21.
- Üstündağ, A. (2021). Investigation of the effect of COVID-19 quarantine on children's daily life and habits. Ankara University journal of. Social Science, 12(2), 14–22. https://doi.org/10.33537/sobild.2021.12.2.2.
- Uyurdağ, N., Eskicioğlu, G., Serkan, A., & Soyata, A. Z. (2021). Risk and resilience factors for psychosocial impact in healthcare workers during COVID-19 pandemic: A systematic review. Anatolian Clinic the Journal Of Medical Sciences, 26(1), 122–140. https://doi. org/10.21673/anadoluklin.783596.
- WHO (2022). WHO Coronavirus (COVID-19) Dashboard. https://covid19.who.int/ [Accessed April 14, 2022].
- WHO (World Health Organization) (2020a). Coronavirus disease 2019 (Covid-19) situation report-51. https://www.who.int/docs/default-source/coronaviruse/ situationreports/20200311-sitrep-51-covid-19.pdf?sfvrsn=1ba62e57\_10 [Accessed May 16, 2021].
- WHO (World Health Organization) (2020b). Coronavirus disease (COVID-19) outbreak: rights,roles and responsibilities of health workers, including key considerations for occupational safety and health. https://apps.who.int/iris/bitstream/handle/10665/ 331510/WHO-2019-nCov-HCWadvice-2020.2-eng.pdf [Accessed April 13, 2021].
- Xiang, M., Zhang, Z., & Kuwahara, K. (2020). Impact of COVID-19 pandemic on children and adolescents' lifestyle behavior larger than expected. *Progress in Cardiovascular Diseases*, 63(4), 531.
- Xiang, Y. T., Yang, Y., Li, W., Zhang, L., Zhang, Q., Cheung, T., & Ng, C. H. (2020a). Timely mental health care for the 2019 novel coronavirus outbreak is urgently needed. *The Lancet Psychiatry*, 7(3), 228–229.
- Xie, X., Xue, Q., & Zhou, Y. (2020). Mental health status among children in home connement during the coronavirus disease 2019 outbreak in Hubei Province, China. *JAMA Pediatrics*, 174(9), 898–900.
- Yalçın, H., Dai, H., & Erkoç, E. (2020). Parents' emotional states at vırus outbreak and their effects on children. *Eurasian Journal of Researches in Social and Economics*, 7(9), 128–142 Retrieved from https://dergipark.org.tr/tr/pub/asead/issue/56911/776632.
- Yeasmin, S., Banik, R., Hossain, S., Hossain, M. N., Mahumud, R., Salma, N., & Hossain, M. M. (2020). Impact of COVID-19 pandemic on the mental health of children in Bangladesh: A cross-sectional study. *Children and Youth Services Review*, 117, Article 105277. https://doi.org/10.1016/j.childyouth.2020.105277.
- Yıldırım, A., & Şimşek, H. (2021). Qualitative research methods in the social sciences (12th ed.). Ankara: Seçkin Publications.