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THE IMPACT OF COVID-19 PANDEMIC ON BIRTH AND MOTHERHOOD: A MIXED METHOD STUDY

Covid-19 Pandemisinin Doğum ve Annelik Üzerine Etkisi: Karma Yöntem Çalışması

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ABSTRACT

In this study the impact of the COVID-19 pandemic on women's maternity experiences as childbirth, newborn nutrition and care was examined. In the first stage, an online survey was applied to 203 people who gave birth in Türkiye during the pandemic. The birth plan of 39 participants (19.2%) was determined to have changed due to the pandemic. 17.8% of the mothers stated that nobody from the parents could come to help them after the birth due to the pandemic. The majority of the mothers (71.4%) were found not to accept newborn visits during the postnatal period due to the pandemic. The second stage included semi-structured interviews, and detailed interviews were conducted with 10 mothers. Two main themes were identified for birth and motherhood experiences during the COVID-19 pandemic: (i) disruption of the birth experience and (ii) changing motherhood process. It was determined that some restrictions and reduced social interactions due to the pandemic caused the birth expectation and postpartum period to deteriorate. During this period, the continuous support of midwives and nurses was of great importance for mothers who could not benefit from spouse or family support for any reason.

Keywords: Birth, COVID-19, Mixed methods study, Motherhood, Türkiye

ÖZ

Bu çalışmada COVID-19 salgınının, kadınların doğum, yenidoğan beslenmesi ve bakımı gibi annelik deneyimleri üzerindeki etkisi incelendi. İlk aşamada pandemi sürecinde Türkiye'de doğum yapan 203 kişiye online anket uygulandı. Pandemi nedeniyle 39 katılımcının (%19.2) doğum planının değiştirildiği tespit edildi. Annelerin %17.8'i doğum sonrasında pandemi nedeniyle ebeveynlerinden kimsenin yardıma gelemediğini belirtti. Annelerin çoğunluğunun (%71,4) pandemi nedeniyle doğum sonrası dönemde, yenidoğan ziyaretini kabul etmediği belirlendi. İkinci aşamada yarı yapılandırılmış görüşmeler yer aldı ve 10 anne ile ayrıntılı görüşmeler gerçekleştirildi. COVID-19 salgını sırasında doğum ve annelik deneyimleri için iki ana tema belirlendi: (i) doğum deneyiminde bozulma ve (ii) değişen annelik süreci. Pandemi nedeniyle getirilen bazı kısıtlamalar ve sosyal etkileşimlerin azalmasının, doğum beklentisinin ve doğum sonrası dönemin bozulmasına neden olduğu tespit edildi. Bu süreçte herhangi bir nedenle eş veya aile desteğinden yararlanamayan anneler için ebe ve hemşirelerin sürekli desteği büyük önem taşıyordu.

Anahtar kelimeler: Annelik, COVID-19, Doğum, Karma yöntem çalışması, Türkiye

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INTRODUCTION

Coronavirus infection (COVID-19) has turned into a pandemic by rapidly spreading around the world. The rapid spread of the infection, lack of a cure, and its fatal characteristic has increased the effect of the disease (Guan et al., 2020). Current evidence suggests that pregnant women are not at a higher risk of contracting SARS-CoV-2 (Liu, Chen, Tang & Guo, 2020) and that the risk of transmission of SARS-CoV-2 through childbirth and breastfeeding is low (Davanzo, Merewood & Manzoni, 2020). However, there is no universal consensus on an optimal approach to protecting mothers and newborns during and after birth (Vazquez-Vazquez, Dib, Rougeaux, Wells & Fewtrell, 2020).

The first COVID-19 case in Türkiye was detected on March 11, 2020. Following the detection of the first COVID-19 case, several measures were taken to prevent the spread of the disease. In Türkiye, non-urgent hospital appointments have been canceled, they have been replaced with distance support as much as possible, and partner involvement during deliveries and appointments has been limited so that the risk of infection in healthcare can be reduced in the process of pandemic. While prenatal care services were postponed except for urgent situations, in some countries, women with pregnancy were asked to go to the hospital for birth only (Furuta, 2020; Walton, 2020). These decisions affect women's choices and fears regarding pregnancy and birth. It is also known that lack of control over these decisions can be traumatic and increase the risk of anxiety and depression (Bick, 2020). These changes and constraints implemented during the pandemic, as well as reduced face-to-face support from family, friends, and peers, can negatively affect women's perceptions and experiences of motherhood, including their ability to cope with challenges and their decisions about newborn care (Vazquez-Vazquez et al., 2020) and lead to detrimental effects on their psychological well-being (Thapa, Mainali, Schwank & Acharya, 2020). This crisis environment and fear of the unknown can lead to a broad isolation, fear, stress, anxiety, and depression among local and national populations (Wu et al., 2020).

Therefore, it is important to highlight that the pandemic has an impact on both prenatal care and birth management and postnatal care (Molgora & Accordini, 2020). Even if individuals are not infected with COVID-19, understanding how pandemic affects birth process and new mothers and learning about their experiences is a key to providing appropriate support. The impact of the COVID-19 outbreak is likely to be context specific and will differ based on a variety of country-specific factors. We hypothesized that restrictions imposed to reduce SARS-CoV-2 transmission would adversely affect mothers' birth experiences as well as newborn

feeding and care processes in the postpartum period. We examined the impact of the COVID-19 outbreak on women's birth and maternal experiences such as newborn feeding and care.

MATERIALS AND METHODS

Study design and sample

We conducted an explanatory mixed-methods study. Phase 1 (ie quantitative phase) was a cross-sectional study (n=203). Results from phase 1 revealed that further understand of the factors affecting the impact of the pandemic on the birth and postpartum process is needed. Phase 2 (ie the qualitative phase) included individual interviews with Turkish mothers who gave birth during the pandemic (n=10). The sample for both phases of the study consisted of mothers who were literate, were aged 18 or older, accommodated in Türkiye, and had given birth after the appearance of the first coronavirus case in Türkiye. In addition, women with COVID-19 were excluded from the study, as the difference between the birth and postpartum processes of women with and without COVID-19 may negatively affect the homogeneity of the study.

Data collection

Phase 1

Phase 1 was conducted between June 2020 and October 2020. Türkiye is composed of different provinces, with populations ranging from millions to thousands. To determine what mothers in different provinces of Türkiye went through in the postnatal process during the pandemic, the study was carried out using an online survey created on Google Forms since social isolation rules that were practiced in the pandemic made it impossible to meet face to face. The form was shared in the groups on Instagram and Facebook that mothers frequently followed. The page administrators of the Facebook and Instagram groups that mothers followed were contacted and asked to share the questionnaire at certain intervals. Also, the questionnaire was shared on websites on maternal topics that mothers usually visited. Before starting the web-based questionnaire, the mothers approved their consent form that they agreed to participate in the study. The mothers participating in the study were informed on the online form that their responses to forms would be used for research purposes, their personal information such as name and surname would not be used, and that they could quit the study whenever they wanted.

Phase 2

Phase 2 was conducted between January 2021 and March 2021. Participants were selected independently of the participants in phase 1. The interviews were made via mobile phones,

considering that it was not in accordance with the social isolation rules to have face-to-face meetings with the participants for a long time. The participants to be interviewed were reached by snowball sampling method. To the first participant interviewed, 'Who would you suggest we talk to about this issue?' (Patton, 1990) was asked and then, other participants who consisted the sample of the research were reached. The participant informed the person she recommended about the study and forwarded her phone number to the researchers. The participants were informed about the study by the researchers and they were told that their phone calls would be recorded. Interviews were conducted by teleconferencing via telephone. The participant and two other researchers took part in the interview. The interviews lasted about 25-30 minutes.

Measures

Phase 1

The data were collected using a "Personal Information Form" (Vazquez-Vazquez, Dib, Rougeaux, Wells & Fewtrell, 2021; Walton, 2020). The form consists of 40 items. The first part includes items questioning the socio-demographic characteristics of mothers. The second part consists of items questioning the obstetric characteristics of the mothers, in addition, in this part of the questionnaire, the factors that may affect the pregnancy and delivery process were evaluated. The third section involves items about the effect of coronavirus pandemic on mothers' postpartum processes, newborn care. Since mothers diagnosed with COVID-19 would be excluded from the study according to the inclusion criteria, at the end of the informed consent page, they were asked whether they had been diagnosed with COVID-19. Accordingly, mothers who had been diagnosed with COVID-19 were not included in the study.

Phase 2

Data were collected through a semi-structured questionnaire. Open-ended questions were asked in parallel with the Personal Information Form. At the beginning of the interview, the socio-demographic characteristics of the participants were determined. Then, questions were asked to explain the effects of the pandemic process on the birth and postpartum period: reasons for not participating regular in follow up pregnancy visits?, change in the birth plan due to coronavirus pandemic, how was the birth plan changed due to coronavirus?, feeling anxious about your infant due to the coronavirus pandemic?, availability of support for newborn care?, does anyone come to visit the baby?, measures when there are visitors at home and breastfeeding?, does the coronavirus pandemic affect your breastfeeding?, how does the coronavirus pandemic affect your breastfeeding?.

Statistical analysis

Phase 1

Descriptive statistics were used for socio-demographic variables, and the effects of pandemic on mothers' pregnancy, birth, and postnatal processes. Also, frequencies and percentages of categorical variables, and mean and standard deviation values were presented for numerical variables.

Phase 2

The analysis began simultaneously with the interviews.. First, the interviews were read several times by the researchers to get an idea of the general content of the text. Researchers created codes independently of each other. All encodings were double-checked by the authors with the original transcripts. Common themes were then identified based on agreement by the researchers. In addition, the inability to obtain new themes was important in determining data saturation. The descriptive analysis references were made on the basis of the remarkable expressions of the interviews and the themes created in the context of the conceptual framework. For participant confidentiality in the study, codes such as "P1, P2, ... P10" were used for participants in direct citations.

Trustworthiness

Transcripts were coded independently to ensure reliability between researchers. For the reliability of the participants, the participants were not addressed by name and were anonymised in descriptive analyses.

Ethical considerations

The approval of the Republic of Türkiye Ministry of Health COVID-19 Scientific Research and Evaluation Commission and the Eskisehir Osmangazi University Social Sciences and Humanities Ethics Committee was obtained (E.47020 / 2020).

RESULTS

Phase 1

The mean age of the participants was 29.07±4.26. The majority of them (65.5%) had an undergraduate degree and half (50.7%) were unemployed. Also, 80% of the participants were found to live in metropolitan cities in Türkiye (Table 1).

Table 1. Distribution of Socio-Demographic Characteristics of the Participants

Variable (N=203)	n	%
Age ($\overline{X} \pm$ S.S.→29.07±4.26)		
<25	39	19.2
25-29	99	48.8
30-34	46	22.7
≥ 35	19	9.4
Education		
Primary	9	4.4
Secondary	18	8.9
High school	43	21.2
University	133	65.5
Employment status		
Yes	100	49.3
No	103	50.7
Family type		
Core	185	91.1
Extended	18	8.9
Presence of a chronic disease		
Yes	187	92.1
No	16	7.9
Living in a metropolitan city		
Yes	164	80.8
No	39	19.2

While 195 of the participants (96.1%) were found to go to pregnancy follow-ups regularly before the pandemic, only 129 were determined to go to the follow-ups regularly following the onset of the pandemic. One of the main reasons why the participants could not go to pregnancy follow-ups during the pandemic process was that they were afraid of going out due to the pandemic (63.4%). Additionally, the birth plan of 39 participants (19.2%) was changed due to the pandemic. When asked how a change in the birth plan, they were answered that the delivery was delayed before the expected date, cesarean section was performed while planning a vaginal birth, and there was a change of hospital and physician due to the pandemic. The leading pandemic measures taken in hospitals where the participants gave birth included 'the use of masks and gloves by the staff' (86.2%), and 45.3% stated that no family members were allowed to accompany them due to the pandemic (Table 2).

Table 2. Data on the Effect of the Coronavirus Pandemic on Mothers' Pregnancy and Birth Processes

Variable (N=203)	n	%
Number of pregnancies		
1	105	51.7
2	58	28.6
3	29	14.3
≥4	11	5.4

A planned pregnancy		
Yes	177	87.2
No	26	12.8
Going to regular follow-ups during pregnancy		
Yes	195	96.1
No	8	3.9
Going to regular pregnancy follow-ups after the emergence of coronavirus		
Yes	129	63.5
No	74	36.5
Reasons for not going to regular pregnancy follow-ups*		
I was afraid to go out due to the pandemic.	52	63.4
My doctor postponed my appointments due to the pandemic.	13	15.8
The hospital where I went for follow-ups canceled my appointments due to the increasing number of corona cases.	9	11.0
My doctor or midwife/nurse conducted my follow-ups on the phone.	8	9.8
Type of birth		
Cesarean	133	65.5
Normal	70	34.5
Change in the birth plan due to coronavirus pandemic		
Yes	39	19.2
No	164	80.8
Type of the change in the birth plan due to coronavirus*		
My birth was scheduled for an earlier date than planned.	14	29.8
Due to the coronavirus, I had to have a cesarean birth although we were expecting a normal one.	10	21.3
I changed the hospital where I would give birth due to coronavirus.	13	27.7
My obstetrician changed due to coronavirus.	11	23.4
Measures taken at the maternity hospital due to coronavirus *		
All the personnel were wearing masks and gloves.	175	86.2
The number of staff entering the birth rooms was limited.	104	51.2
None of my relatives were allowed to accompany the birth.	92	45.3
Mothers giving birth were wearing a mask, too.	99	48.8
Visitors were not allowed after birth.	137	67.5
I was discharged after birth without staying in the hospital.	13	6.4

***Multiple responses were given.**

Table 3 provides information about the effect of the coronavirus pandemic on mothers' postpartum processes and infant care. The rate of mothers who had knowledge about the effect of coronavirus on infants was 22.7%. Internet news and social media were mothers' primary sources of information about coronavirus. 17.8% of the mothers stated that nobody from the parents could come to help them after the birth due to the pandemic. The majority of the mothers

(71.4%) were found to not accept newborn visits during the postnatal period due to the pandemic.

Table 3. Information About the Impact of the Coronavirus Pandemic on Mothers' Postpartum Processes and Infant Care

Variable (N=203)	n	%
Knowing whether the coronavirus pandemic has an effect on newborn babies		
Yes	46	22.7
No	57	28.1
Somewhat	100	49.2
Source of information on coronavirus*		
Television	102	50.2
Online news	141	69.5
News on newspapers	19	9.4
Social media	105	51.7
Family and friends	38	18.7
My physician and nurse	71	35
Other	5	2.5
Feeling anxious about your own health due to the coronavirus pandemic		
Yes	159	78.3
No	44	21.7
Feeling anxious about your infant due to the coronavirus pandemic		
Yes	176	86.7
No	27	13.3
Availability of support for infant care		
Yes	129	63.5
No	38	18.7
Nobody was able to come to help me due to the pandemic.	36	17.8
Does anyone come to visit the baby? *		
Yes, I have to accept them.	17	8.4
Yes, I accept them.	7	3.4
No, I don’t accept them due to the pandemic.	145	71.4
Nobody wants to come due to the pandemic.	79	38.9
Measures when there are visitors at home*		
I welcome them with a mask.	12	5.7
I don’t shake hands.	58	27.8
I keep my social distance.	60	28.7
I cleanse the entire house after the guests leave.	20	9.6
I don’t want to show my baby to them.	32	15.3
I sleep the baby before the guests arrive.	17	8.1
I cover the baby’s face.	10	4.8

*** Multiple responses were given.**

While 197 of the mothers breastfed their babies, 21 of them stated that they felt anxious while breastfeeding their babies due to the pandemic. The mothers were mostly anxious about transmitting the disease to their babies in case they were already infected (65.5%). The majority of mothers (n = 134) washed their hands as a measure before breastfeeding due to the pandemic.

Table 4. Information on the Effect of the Coronavirus Pandemic on the Breastfeeding Process of Mothers

Variable (N=203)	n	%
The status of breastfeeding the infant soon after birth		
Yes	195	96.1
No	8	3.9
The current breastfeeding status		
Yes	197	97
No	6	3
Does the coronavirus pandemic affect your breastfeeding?		
Yes	21	10.3
No	182	89.7
How does the coronavirus pandemic affect your breastfeeding?		
I feel very anxious while breastfeeding my baby.	12	41.3
While breastfeeding my baby, I am afraid that I will infect it in case I am already infected.	19	65.5
I cannot breastfeed my baby because I feel anxious about the disease.	3	10.3
Other (I could not breastfeed my baby, who was treated in intensive care, due to the pandemic.)	1	3.4
Measures taken by the mother while breastfeeding *		
No. I don't take specific measures.	79	38.9
I wash my hands before every breastfeeding.	134	66
I wear a mask while breastfeeding my baby.	13	6.4
Knowing whether coronavirus is transmitted to the baby through breast milk*		
My doctor, nurse/midwife informed me that the virus is not transmitted to the baby through breast milk.	58	28.6
I learned from the news that the virus is not transmitted to the baby through breast milk.	86	42.4
I learned from social media that the virus is not transmitted to the baby through breast milk	62	30.5
I could not find any information about whether the virus is transmitted to the baby through breast milk.	67	33

*** Multiple responses were given.**

Phase 2

Experiences of birth and motherhood during the COVID-19 pandemic are organized around two themes: (i) disruption in the birth experience and (ii) changing motherhood process.

1. Disruption in the Birth Experience

General isolation

Pregnant women are expected to be alone during birth or have a limited number of companions under pandemic conditions in Türkiye. In our study, most of the women were able to have their partner or another companion in the hospital, but some had to give birth alone.

"They (the hospital) said, 'You can have only one companion with you at birth. My sister came.my husband couldn't come. We were planning to be with me at the birth, but it didn't happen. "(P3)

"I gave birth when the corona first started. They did not receive any companions. I made my own entrance and exit. My husband was able to see me and our baby when we got out of the hospital. "(P9)

The coronavirus epidemic had unexpected effects on the birth process. By changing the hospitals where they will give birth, the participants preferred hospitals where they would feel safer.

"Actually, I was going to give birth in a state hospital. But I thought private hospital was safer. My friend who gave birth said that the coronavirus measures were very good in private hospital. " (P1)

"I was very satisfied with my doctor and the hospital. But due to the pandemic, I wanted to give birth in the hospital close to my home. "(P7)

Mothers were generally satisfied with the coronavirus measures taken in hospitals. However, they sometimes experienced the difficulty of these measures.

"I had a cesarean birth. It was mandatory to wear a mask at birth. It was very difficult for me. After a while I couldn't stand it anyway and I took the mask down. "(P10)

2. Changing motherhood process

Negative postpartum experience in hospital

In Türkiye, mothers and newborns are discharged 24 hours after normal deliveries and 48 hours after cesarean deliveries, if they are healthy. Several participants felt that the pandemic had little effect on their hospital stay.

"I waited for one more day to stay in the hospital. Since I did not have any problems, they were discharged immediately. "(P10)

Due to the isolation measures, the hospital companion restrictions caused the mothers to have some difficulties in the postpartum period.

"My mother couldn't come to me because she was old. I really wanted my mother to be with me after the birth. My husband was with me, but he is no different from me, so inexperienced. "(laughing) (P9)

Inability to connect with close friends and family

Some women have experienced loneliness at home in the early postpartum weeks. COVID-19 restrictions and social distancing, concerns about the elderly family members have meant that many women do not have opportunities to introduce their babies to loved ones.

"My mother is old and could not come due to the pandemic. I had to take care of the baby alone. Especially the first months were very difficult for me. My first baby and it was very difficult for me when I was alone. "(P9)

"I miss sociability. I would love to introduce my baby to my close friends and family. "(P2)

In Türkiye, those who have a baby have their relatives and close friends read mawlids (in Turkish Mevlit) to announce it. This is usually done 40 days after the birth of the baby. Some of the mothers, who said that they had to make a Mevlit, reported that they had to accept guests, but they were uneasiness due to the pandemic.

"We had to make a Mevlid. I was actually going to invite few people. My mother said that the relatives we didn't invite might be offended by us, so I had to call more people. I regretted it, but luckily nothing was infected. "(P3)

Infant feeding concerns

Despite the difficulties of the pandemic, many of the mothers continued to breastfeed without worry. However, some participants were afraid of infecting their babies unknowingly if they were sick.

"A relative of ours got corona and her baby also got infected. Her baby got fever and was hospitalized in the intensive care unit. After this situation, I am also afraid to breastfeed. What if I unknowingly infect my newborn with something. "(P7)

Another participant who had corona could not breastfeed her baby during this period and later experienced breast refusal.

"I had corona and stopped breastfeed because I used medication. Later, my baby refused the breast. Currently, I'm not breastfeeding. "(P4)

Complex Feelings Mixed with Gratitude

Some participants also stated that they had a partially positive view of social distancing and being away from normal social interactions.

"It's actually that beautiful. So no one comes. As you know, someone always comes to us (in Türkiye*) to see the baby. I couldn't spare time for my baby to deal with them. On the one hand, it was good. "(P6)*

DISCUSSION

Our study demonstrated that the pandemic had unexpected effects on birth and the postpartum period. Adverse situations such as scheduling the birth for an earlier date, absence of a companion during the birth process, reduced social support in the postnatal period due to the measures taken in the pandemic, and anxiety while breastfeeding were identified.

The prenatal care services provided in Türkiye, such as medical check-ups, screening, and training, are provided with frequent face-to-face appointments (an average of 14 follow-ups during pregnancy). However, national policies have recommended canceling non-urgent hospital appointments and replacing them with distance support as much as possible to reduce the risk of infection due to the pandemic in Türkiye. In our study, it was determined that while almost all of the participants went to regular pregnancy checks before the pandemic, this rate decreased to almost half with the emergence of the pandemic. Similarly, prenatal care procedures have been changed due to the pandemic in many countries, including the UK and Japan (Furuta, 2020; Walton, 2020).

The coronavirus pandemic had unexpected effects also on the birth process. Participants reported problems, such as scheduling the birth for an earlier date or hospital and healthcare personnel changes due to the coronavirus. Cesarean rates are high in Türkiye regardless of the pandemic. The caesarean section rate is reported to be 53.1% (OECD, 2017) which is among the highest globally. However, there were also mothers who were planned vaginally but gave birth by cesarean section due to the effect of the pandemic. Having and maintaining a birth plan encourages women to set expectations about the birth and can give them a personal sense of accomplishment and control by involving them in the decision-making process (Rodríguez-Almagro, J., Hernández-Martínez, Rodríguez-Almagro, D., Quirós-García, Martínez-Galiano, & Gómez-Salgado, 2019). Similarly, pregnant women are expected to be alone during birth or have a limited number of attendants under pandemic conditions in Türkiye, as well. In our study, most of the women were able to have their husbands or some family elders as attendants in the hospital, but they had to give birth alone. Due to the coronavirus pandemic, women give birth alone without any family members. An increased level of anxiety and feelings of isolation, particularly among women and their families, has been reported since family presence and support is not allowed in hospital settings (Brooks, Weston & Greenberg, 2020; Furuta, 2020). Despite the efforts of many global and local organizations to re-involve partners in maternity care, in the COVID-19 pandemic process, spouses are perceived as companions during birth, not as supporters (Ravaldi, Mosconi, Crescioli, Ricca & Vannacci, 2020). Minimizing the

number of caregivers that the newborn and mother are exposed to is important to reduce the risk of infection. However, it is known that continuous support given to women at birth is associated with increased spontaneous birth, shorter duration of birth, and a positive experience of birth (Vazquez-Vazquez et al., 2020). For this reason, it is important for the woman to have a companion to support the birth without creating a risk during the pandemic period, and maternity services should be arranged accordingly during the pandemic period.

Family support during pregnancy and the postnatal period in Türkiye is important and often the mother of the woman accompanies her daughter and supports the process to facilitate it. The travel restrictions under the national measures taken due to the pandemic in Türkiye, unavailability of meeting family members due to social distance, loneliness during the postpartum process, and decreased social interaction have all caused mothers to experience a challenging process. In our study, most of the women were able to have their partner or another companion in the hospital, but some had to give birth alone and some women have experienced loneliness at home in the early postpartum weeks. On the one hand, mothers go through a distressing process because of newborn care and lack of social support during the postpartum process; on the other hand, due to the pandemic, they feel anxious about newborn visits that are a traditional practice in Türkiye. Pregnancy and childbirth are often a period of celebration for women and are associated with the joy experienced by both parents and close family members (Chivers et al., 2020). Besides, traditional rituals, such as hospital and home visits of family members and friends during the postpartum period provide important opportunities for social support to the mother. The support from the environment and the harmony between spouses is important in starting and maintaining the interaction between the mother and the newborn, adaptation of the mother to her new role, and coping with the problems she faces (Mermer, Bilge, Yücel, & Çeber, 2010). Support from the environment in this process can help the mother develop skills needed to overcome difficulties (Ellingson & Sotirin, 2006) and other mental problems (Molgora & Accordini, 2020) that may further complicate mothers' decisions regarding newborn care.

Despite the challenges posed by the pandemic, the findings of our study showed that hospitals continued practices such as encouraging and initiating breastfeeding and complied with the guidelines that encourage the maintenance of these practices during the pandemic. (Turkey Health Ministry, 2020; UNICEF, 2020; WHO, 2020) While most of the mothers in the study stated that they breastfed their babies, the rate of the mothers who said that they felt anxious about transmitting the virus to their babies while breastfeeding was also quite high. Indeed, it was a worrying finding that there were a few mothers who stopped breastfeeding their

babies because they felt anxious about it. When exposed to stress, people with high negative sentiment tend to experience symptoms of anxiety and depression (Duran, Kaynak & Karadaş, 2020; Ystrom, 2012). The mothers in our study did not have enough knowledge of the effects of the coronavirus on the newborn or how to maintain breastfeeding in this process, which may have caused increased concerns. In an online survey conducted by the Australian Breastfeeding Association (ABA) to assess the concerns of mothers seeking breastfeeding support during the pandemic, mothers reported that their concerns about breastfeeding were related to inadequate milk or weight gain, sore nipples, relactation, and reducing supplemental milk (infant formula). Concerns were exacerbated by the lack of face-to-face healthcare or avoidance of its utilization due to fears. Lack of access to healthcare, isolation from others, and concerns directly related to COVID-19 are challenging for many mothers (Hull, Kam, & Gribble, 2020). Breastfeeding counseling and training to maintain safe breastfeeding during the pandemic can help women to regain confidence in their breastfeeding abilities and to avoid the use of formula.

Limitations

While more strict measures were taken between March and June in Türkiye during the pandemic process, measures were loosened in June with the decline in the number of cases. Also, different measures were taken in different provinces of Türkiye. For this reason, the effect of the pandemic differs in terms of the month and province of birth. Since the study was conducted through a questionnaire, the effect of this difference could not be examined in detail. The study was conducted using a Google Forms. It was constantly shared on the relevant social media accounts, but the feedback was insufficient. Since the research was conducted by phone call, visual status could not be evaluated.

CONCLUSION

Our findings highlighted the impact of the coronavirus pandemic and some measures taken due to the pandemic on birth experiences, infant care and nutrition, and support experienced by mothers. Adverse situations such as scheduling the birth for an earlier date, absence of a companion during the birth process, reduced social support in the postnatal period due to the measures taken in the pandemic, and anxiety while breastfeeding were identified. Some restrictions imposed due to the pandemic and the decrease in social interactions caused deterioration in birth expectancy and postnatal period. As suggested by some institutions, rearrangements should be made in maternity services so that pregnancy women can have an attendant during birth and postpartum period. The continuous support of midwives and nurses

for mothers who cannot benefit from spouse or family support during this process for any reason is of great importance. Also, healthcare personnel must provide information and support to mothers with non-face-to-face appointments, as mothers need safe information and support during this process. There is a need for future studies that will reveal mothers' experiences regarding birth and postpartum through detailed interviews and examine the future effects of the experiences in this process on the mother and the newborn.

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Conflicts of interest

No potential conflict of interest was reported by the authors.

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