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The breastfeeding experiences of COVID-19-positive women: A qualitative study in Turkey

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Abstract

Aim: The aim of the study was to determine the breastfeeding experiences of COVID-19-positive women.

Methods: This was a qualitative study of 14 women diagnosed with COVID-19. One-to-one telephone interviews were conducted and recorded. The data were analyzed thematically.

Results: Three main themes were identified. Theme 1 was "increased emotional load," outlining the emotional effects of the disease in the women, such as feeling sad and inadequate, in addition to anxiety and fear. Theme 2 was "breastfeeding during the disease," which illustrated the effects of the treatment process on the women, the disease-related symptoms, their influence on breastfeeding attitudes and behavior, and the effects of social media and television. Theme 3 was "perceived social support and need," defining the social support perceived and expected by the women during isolation with needs.

Conclusion: Women who could not get the professional support they expected had to face the difficult choice between taking medical treatment and breastfeeding. Many women refused drug treatment for COVID-19 and continued to breastfeed with all the resultant emotional and physical difficulties, as they believed in the benefits of mother's milk. The experiences of the women were discussed with an approach that enabled developing health care services further. It was concluded that Turkish health care professionals need to develop an evidence-based and female-centered approach for COVID-19 management in breastfeeding women.

KEYWORDS

breastfeeding, coronavirus disease 2019, COVID-19, human milk, qualitative research

1 | INTRODUCTION

The coronavirus 2019 (COVID-19) epidemic that started in China in December 2019 has become an emergency public health problem with international implications (Rodriguez-Morales et al., 2020). The rapid increase in COVID-19 cases has changed global health and the provision of health care services (Renfrew et al., 2020; Rodriguez-Morales et al., 2020). These changes have seriously affected women, newborn babies, families, and health care professionals (Davenport et al., 2020; Renfrew et al., 2020). Limitations about breastfeeding, mother-baby contact, and home visits are changes related to COVID-19 that have restricted the rights of both the mother and newborn (Davenport et al., 2020; Lubbe et al., 2020; Renfrew et al., 2020). Some studies have

reported that mothers have been separated from their families and support networks due to restrictions on home visits and quarantine measures during the pandemic period (Brown & Shenker, 2021). It was also stated that some face-to-face breastfeeding support groups moved online or were abandoned (Brown & Shenker, 2021; Hull et al., 2020). Similarly, mothers have been confined to their homes in Turkey. Nurses and midwives have not been able to provide professional breastfeeding support either face-to-face or in the home environment during the pandemic process.

Some concerns have also been raised about the safety of breastfeeding. However, COVID-19 has not been detected in mother's milk so far. It is reported that mother's milk can protect newborns and small children from infections including COVID-19 with the helper antibodies and anti-infective factors it contains (Mocelin et al., 2020; Yurtdaş et al., 2020). Various institutions such as the World Health Organization and U. S. Centers for Disease Control and Prevention also emphasize the importance of feeding with mother's milk during the COVID-19 pandemic (Centers for Disease Control and Prevention, 2020; Williams et al., 2020). In addition, some studies also report that more advanced research is needed to evaluate the safety of mother's milk because of COVID-19 (Shahbazi Sighaldeh & Ebrahimi Kalan, 2020).

The information currently available indicates that breastfeeding women who have COVID-19 or its symptoms can feed their babies with mother's milk by taking personal infection control measures to prevent spreading the virus to their babies (hygiene, wearing a mask, using a personal and disinfected pump if necessary) (Lubbe et al., 2020; Mocelin et al., 2020; Ng et al., 2020; Williams et al., 2020; Yurtdaş et al., 2020). It would be best for women who are sick or infected to stay in a room separate from the other family members, including the baby except at times reserved for breastfeeding (Shahbazi Sighaldeh & Ebrahimi Kalan, 2020; Yurtdaş et al., 2020). This means there are three approaches that health care professionals can use and adapt to changing conditions, and these are direct breastfeeding of the baby by the mother or a caregiver, feeding the baby with mother's milk expressed from the mother or another caregiver, or not feeding the baby with mother's milk at all either directly or by providing expressed milk. It is important for the health care team to inform the families using a structured training program and then make a decision jointly as regards these options in the presence or suspicion of COVID-19 (Ng et al., 2020). Even mothers who are too ill to breastfeed should be supported to express their milk and trained on the methods for expressing the milk by hand or using a syringe or pump (Lubbe et al., 2020). The babies should be fed by a healthy person if possible. In addition, the mothers and fathers should also be taught how to clean the bottle if they decide to use baby formula because of fears about milk safety (Shahbazi Sighaldeh & Ebrahimi Kalan, 2020).

Although how women with COVID-19 infection or its symptoms can continue breastfeeding and how health care professionals need to approach this issue have been clearly defined, there is limited information on how this process actually takes place in practice. One study has reported that breastfeeding women experience difficulties because of the pandemic, have to struggle to receive support, feel anxious about how safe breastfeeding is, and feel alone regarding the matter. These developments are said to increase the risk of women stopping breastfeeding before they are otherwise ready to do so (Brown & Shenker, 2021). Another study reported on mothers who were seeking support to increase milk production or restart breastfeeding during the pandemic, and having serious related anxieties. In the same study, women were found to be unable to access face-to-face health care services and to generally feel stressed and isolated (Hull et al., 2020). It is important to determine the opinions and experiences of women who have experienced COVID-19 in this context so as to determine the effect of exposure to the disease on decisions related to breastfeeding and to improve health care services. We did not find any study on the opinions and experiences of women who had experienced COVID-19 during this period. The aim of this study was to determine the breastfeeding experiences of COVID-19-positive women. We believe the current study will be an important source for midwives, nurses, and other health care professionals regarding the management of COVID-19 in breastfeeding women.

2 | METHODS

2.1 | Design

This study was carried out using a qualitative approach. The Standards for Reporting Qualitative Research (SRQR) were used for conducting the study and reporting the results. The interviews were conducted between 1 and 25 January 2021.

2.2 | Setting and participants

This study was conducted on women living in Turkey who had a COVID-19 diagnosis. All the included women had been administered a treatment protocol in their home environment. Anyone found to have a positive COVID-19 test result or to have contacted someone with

COVID-19 at any health care institution in Turkey is simultaneously reported to the Ministry of Health's central automation system. This system ensures the treatment, monitoring, and care of the case by the closest family physician unit or community health unit. These units generally have midwives, nurses, and a family physician. Health care teams composed of these staff members carry out home visits. The infected person and those declared to have contacted him/her undergo isolation for 10–14 days.

The snowball sampling method was used in this study. The inclusion criteria for participants of the study were being 18 years or older in age, being able to speak Turkish, having received a diagnosis of COVID-19 while breastfeeding, and agreeing to participate. The first participant meeting these criteria was a woman who the investigators reached through their own graduates; she was being followed-up by a family physician unit in the province where the investigators lived, and did not know the investigators personally. The sample was extended by asking the first participant and all subsequent participants whether there was someone suitable for the study they could recommend. Reaching data saturation was used as the principle for determining the sample size for the study: It was decided that the sample size would be accepted as adequate once the participants were repeating the same information and reusing the same statements often. A total of 14 women who met the inclusion criteria participated in the study.

2.3 | Data collection

The data were collected through recorded one-to-one telephone conversations in this study. The demographic information of the participants in the study was obtained before the interview. The interviews were conducted by the first author who is an expert in women's health nursing (PhD) and in conducting qualitative studies. The interviews were conducted when the participants were at their own homes, and in a quiet environment free from interruptions. The participants selected the time period for the interview themselves. The interview had three main parts. Each part was based on a guideline introduced by Charmaz (2014) as the opening, intermediate, and ending questions. The semi-structured interview form that was developed by the investigators in line with the literature was used for data collection (Barona-Vilar et al., 2009; Brown & Shenker, 2021; Hull et al., 2020; Vallido et al., 2010). This form included four main and six in-depth open-ended questions. The main queries were "Please describe your own COVID-19 process," "Please describe your breastfeeding experience during COVID-19 (+)," and "What were your coping strategies and support resources while sick with COVID-19?" The interview continued according to the responses given by the participants. In-depth questions such as "what do you mean?" and "please explain this more" were also used. At the end of the interview, the participants were asked whether they had anything else to add. The interviews took 20–35 min.

2.4 | Data analysis

Two authors transcribed the interviews. The consistency between the recordings and the transcripts was then checked out by another author. The raw data totaled approximately 68 pages. The data were analyzed thematically according to Braun and Clarke's framework using NVivo software (Braun & Clarke, 2006). Lincoln and Guba's Evaluative Criteria were used for the validity and reliability of the data (Guba & Lincoln, 1982).

2.5 | Ethical considerations

Ethical approval was obtained from the Ethics Committee of Niğde Ömer Halisdemir University before the start of the study and the Turkish Ministry of Health. Verbal consent was obtained from all participants.

3 | RESULTS

A total of 14 women who had each been diagnosed with COVID-19 while breastfeeding her child were included in the study. The women were living in various provinces of Turkey and all were married. The average age of the women was 28.57 ± 3.85 years (range 24–38 years). The average age of the babies/children was 11.35 ± 8.45 months (range 1–30 months). The interviews took place an average of 48 days (range 14–150 days) after the COVID-19 diagnosis (Table 1). One women (P9) stated that she had discontinued breastfeeding after her COVID-19 diagnosis while the others had continued to breastfeed. The interview data were participants' statements which fell under the subthemes of three main themes as described below, illustrated with quotations from individual participants (identified as P1, P2, etc.; see also Table 2).

3.1 | Theme 1: Increased emotional load

This theme defined the emotional situations created by the illness in the women. The women talked about their experience of becoming infected with COVID-19 and reported emotional symptoms such as feeling sad and inadequate, guilt, anxiety, and fear.

TABLE 1 Sociodemographic characteristics of the participants

	Age	Education	Province of residence	Working status	Marital status	Number of children	Breastfed child age (month)	Time after the COVID-19 diagnosis at the interview (day)
P1	26	University	İstanbul	No	Married	1	12	90
P2	24	University	İstanbul	No	Married	1	9	75
P3	28	University	Siirt	Yes	Married	1	8.5	15
P4	31	University	Kahramanmaraş	Yes	Married	1	1.5	20
P5	31	University	Samsun	No	Married	2	2.5	14
P6	31	University	Adana	No	Married	1	21	25
P7	28	University	Niğde	No	Married	2	18	30
P8	29	University	Siirt	Yes	Married	1	18	35
P9	32	University	Adana	Yes	Married	1	30	30
P10	25	Secondary school	Van	No	Married	3	1	30
P11	24	University	Kilis	No	Married	1	9	90
P12	28	High school	İstanbul	No	Married	2	4.5	60
P13	38	University	Kocaeli	Yes	Married	1	7	17
P14	25	University	Kayseri	No	Married	1	17	150

3.1.1 | Feeling sad and inadequate

Most of the women had decreased physical contact with their babies because of COVID-19. This resulted in their feeling sad and inadequate.

I was so sad, I cried. So this is even worse, you can't hug your child properly, you can't kiss, you can't smell. You know, even when you're holding [the child on] your lap, you're wearing a mask. These [things] are really bad, so it makes you feel bad. (P2)

3.1.2 | Guilt

Most of the women had observed symptoms in the baby/child that could be related to COVID-19, such as fever, lack of appetite, cough, and shortness of breath. Some women associated this experience with breastfeeding and blamed themselves.

We got COVID, my son lost his appetite on the third day. He had high fever and he almost developed a seizure in my hands. It is because of us in the end. You feel responsible and sad, you feel guilty. (P8).

3.1.3 | Anxiety and fear

The women experienced anxiety and fear at the time they were diagnosed with COVID-19. This experience was associated with the fear of spreading the infection to others (such as older members of the family, the baby, the woman's partner), not recovering, becoming reinfected with COVID-19, and the risk of death and loss.

What if something happened to them, what if there is a dead body when I wake up in the morning, what would I do … I kept looking at them … our psychology became terrible. (P5)

3.2 | Theme 2: Breastfeeding during the illness

This theme reflected the COVID-19 treatments of the women, their disease-related symptoms, and the effects of these experiences on their breastfeeding attitudes and behavior, together with the effects of social media and television.

3.2.1 | Refusing treatment and continuing to breastfeed

The women felt that they had to choose between the recommended COVID-19 treatment and breastfeeding. Most of the women stated that they had refused COVID-19 drug treatment and continued to breastfeed while letting the disease run its natural course. The women mentioned they had been careful about following hygiene rules during isolation, had used a mask, and had tried to decrease close contact other than when breastfeeding.

I did not want to take my medication. For a breastfeeding woman, I think it is more logical not to take the medication

TABLE 2 Themes and subthemes from the qualitative data analysis

Themes and subthemes	Quotations
Increased emotional load	
Feeling sad and inadequate	It is a bad feeling... it is psychologically devastating. You are sick and inadequate for your baby. He cried and I cried, frankly the feeling of being inadequate was very difficult at that time. (P1) Frankly, I was first anxious whether I had spread it to my child or the elderly family members... Of course, it made me sad as a mother. I am not enough for him. When I take my feeling of not being able to reach him into account. (P9)
Guilt	My baby started to develop a fever. Cough, shortness of breath. The feeding amount decreased somewhat. I had breastfed him and he was feverish. I was really scared it was because of me. (P1)
Anxiety and fear	Are we going to get well? Will we be reinfected? How can we get over it? We have anxiety even now. (P7) Even without wanting to, we see and hear things about the people who die. I thought about whether I would die as well. (P8)
Breastfeeding during the illness	
Refusing treatment and continuing to breastfeed	I was told I had to stop breastfeeding for the medication. However, I wanted to breastfeed as breastfeeding is of course better for the child. I did not use the medication, I continued to breastfeed using two masks. (P6)
Prioritizing mother's milk in feeding the baby/child	We prioritized mother's milk. It is a natural antibiotic anyway. I started to breastfeed more. (P14)
Difficulty breastfeeding due to physical symptoms	I had intense chest pains, malaise, sore throat. Breastfeeding was really difficult at that time. You want to sleep, you want to lie down but you also want to breastfeed. (P6)
Being affected by the social media and television	When the pandemic started, I read a lot about how mother's milk protected antibodies, etc. and so I continued breastfeeding. (P9) You must have seen in on television, they talk about thyme, I kept boiling thyme, ginger, and lemon and drank it. I kept taking vitamins. I ate a lot of fruit, I kept drinking thyme. That made me stronger and I could take care of my child. (P2)
Perceived social support and need	
Support by the partner and mother	My husband and I always told each other that we would be fine... we motivated each other. (P7) No one from my family could come because of the quarantine and they therefore could not be of much support. I only had my husband with me anyway. He supported me regarding breastfeeding. But my mother called all the time and encouraged me to breastfeed, breastfeed, breastfeed. (P3)
Primary health care providers or health visitors	The health care staff were keeping an excessive distance to protect themselves. (P8) We could not contact anyone. They came here (to the house) just once and only checked whether we were home. (P5) I do not want to talk badly of them either and I am not sure how to put this but they were not interested in me... The person who brought me the medication told me I could breastfeed 3 h later. I called 184 (the COVID helpline) after my baby became feverish. They said I should not have breastfed. I would have liked to have received more accurate information. Hearing confusing things creates a dilemma for a person. (P1)

instead of stopping breastfeeding ... I tried not to hold my child in my lap. However, I was in close contact in order to breastfeed. I used a mask and breastfed. (P12)

In addition, the two women who decided to use medication for COVID-19 gave the following statements. One said that she had discontinued breastfeeding involuntarily, while the other stated that she had breastfed despite taking medication.

I used Favicovir (favipiravir), I continued to breastfeed during that period. However, I tried not to breastfeed for three hours. So that the medication would be distributed. (P1)

I used Favicovir (favipiravir) because I had just given birth. It had been a week since I had given birth. Your symptoms are on the mild side but I see positivity in eight foci in your lung (said the doctor), you need to use

medication, he said. I would have preferred to breastfeed and not use medication. (P4)

The results also indicated women's belief that the drug treatment recommended for COVID-19 could have a negative effect on the health of the baby and mother, which played a role in women refusing treatment. The need to discontinue breastfeeding while using medication also increased the rate of refusal.

My child had drunk nothing but my milk so I tried to get okay without meds... Some people I knew had no problems before the medication but were hospitalized because of tachycardia after they started using it. If there was definite information that the pill would be beneficial and would be a definite solution, why would people try to find a vaccine? (P11)

3.2.2 | Prioritizing mother's milk in feeding the baby/child

The mothers frequently stated how important mother's milk was for the health of the baby/child. The notion that the content of mother's milk would protect the baby/child from COVID-19 was common among the women. The findings indicated that this notion had increased the women's motivation to breastfeed and had made them prioritize mother's milk when feeding the baby/child. In addition, many women stated that they had tried to breastfeed more frequently and for longer periods at the time of the COVID-19 diagnosis.

I wanted to breastfeed the child every time I held him. As though this would protect him ... As I said, I tried to use mother's milk, the only medication I possessed, to prevent his health from deteriorating. (P6)

I breastfed every 10 minutes, whenever I thought about it as much as possible. I breastfed more often, much more often than the time I did not have COVID. (P8)

Some women also stated that they had delayed their decision to start supplemental food and discontinue breastfeeding.

The reason I continued to breastfeed was COVID. I was normally planning to discontinue at 2 years of age. (P9)

I delayed the time to start supplemental foods a bit. I thought that I should breastfeed more. (P13).

3.2.3 | Difficulty breastfeeding due to physical symptoms

Most of the women had experienced symptoms such as fever, shortness of breath, myalgia, and decreased appetite due to COVID-19. These symptoms resulted in difficulty breastfeeding and a perception of inadequate milk production.

It was as though all my bones were aching, I couldn't stand up. My cough started to increase. I developed a fever on the night of that day anyway. I had an intense headache. However, I tried to stand up for the kids. I was breastfeeding whenever he came. (P7)

I could not sleep at all for three days, I could not feed properly. I had almost no milk for a week at that time anyway but I still tried to breastfeed my son. (P8)

3.2.4 | Being affected by social media and television

The results indicated that television and social media played a role in the positive views of the mothers towards mother's milk and their positive attitude regarding breastfeeding.

I had heard that mother's milk has a protective effect from the programs I had watched on TV ... because I trusted mother's milk ... I had also heard it provides good nutrition ... I mostly breastfed because I thought breastfeeding would make him better ... I did not think that the disease would spread from me to him anyway. (P7)

There was a group I followed on the internet and I got a lot of help from there about breastfeeding. (P11)

It was also interesting that some women used diet supplements (increased fresh vegetable and fruit consumption, thyme, ginger, lemon, garlic, yogurt, hibiscus, vitamin D) to increase lactation or decrease COVID-19 symptoms according to the information they had obtained from social media and television.

I drank herbal tea. Such as hibiscus, winter tea. I consumed water with lemon all the time so that my milk would not be affected ... I think that mothers with COVID should always drink herbal teas and soups. It helps healing ... (P3)

3.3 | Theme 3: Perceived social support and needs

This theme describes the social support perceived and expected by the women with their needs. The source of social support during isolation was frequently mentioned by the women as their partner, mother, and mother-in-law. Another problem mentioned by the women was related to the quality of the support received from the primary health care providers or visitors.

3.3.1 | Support by the partner and mother

The social environment of the women was limited by their isolation. Most of the women mentioned the

support provided by their partner, mother, and mother-in-law, who accompanied them or called on them during isolation. The support received from these sources commonly included baby care, positioning the baby while breastfeeding, and providing motivation through positive statements regarding breastfeeding and recovery.

My partner and mother constantly provided support for breastfeeding. We try to have the baby hold the breast, to have him suck. When he cries, we try to walk him around a little and try again. I did not receive support from anyone else. (P4)

A few women who expected to receive support from these sources on similar issues stated that they could not receive the support they wanted.

The friends, relatives, and the partners were inadequate in providing support during the breastfeeding process. No one had anything positive to say, whether it was my partner or my mother in law. I would have wanted them to be a little constructive but everyone was talking in a destructive manner about the breastfeeding process. (P11)

3.3.2 | Primary health care providers or health visitors

The women had been provided health care services on the phone by their primary health care providers (family physician, midwife, nurse), or at home by a health care visitor (a member of a filiation, or contact tracing, team) who visited the COVID-19 patient at home. The women generally described their experiences regarding the home visit- or call-based health care services as negative or inadequate. Most women stated being unhappy about not receiving the relationship or close interest they needed from the health care staff or home health care visitors for both themselves and the baby/child. The women complained of the decision to take medication being left to them without receiving adequate information, of receiving insufficient information on various matters (milk expression, breastfeeding support system, discontinuing and maintaining breastfeeding while using medication), of not receiving adequate replies to their queries, and of the lack of psychological support.

As soon as the health care workers arrived, I asked questions about my child: what is going to happen? They said we will not give you medication as you are breastfeeding; we say this to all the patients like you and we tell them to breastfeed. If you want, you can stop breastfeeding and we can give you medication, that is up to you. It is up to me but I could not stop breastfeeding my child as I could not receive clear information. (P2)

They could have called us or shown interest in our breastfeeding … No one called me, do I make myself clear? … They create significant anxiety for a mother. There could have been support that understands the mothers and their emotions. (P13)

However, the achieved results indicated that the need for professional breastfeeding support continued after the illness as well. Another finding derived from the women's experiences was that the lack of a unified approach in the information provided by the health care staff on COVID-19 treatment and maintenance of breastfeeding resulted in confusion in the women.

They could have directed us to different breastfeeding methods called the BSS (Breastfeeding support system), and they could have made the mothers more aware of milk expression. The family health centers and filiation teams could have provided a different kind of support. At the end of the process they could have done different things related to promoting breastfeeding. (P4)

The physicians are divided, some say you can breastfeed the baby while taking medication. I talked to two different physicians at the hospital and they said very different things. I did not expect to receive such extreme opinions. They could not answer my questions at all. (P11)

4 | DISCUSSION

This qualitative study investigating the experiences of women diagnosed with COVID-19 supported the results of previous research indicating that the mental health of the mothers had been affected negatively during the COVID-19 pandemic, and that their anxiety and depressive symptoms had increased (Davenport et al., 2020; Hull et al., 2020). Similarly, the fear of losing close ones, of catching the disease, and of death, reported as common reactions to the pandemic among adults (Sargın & Kutluca, 2020), were clearly expressed even after the period of COVID-19 illness was over by the women participating in this study. It indicated that the trauma caused by COVID-19 would have effects on their mental health in the long term. It may therefore be useful to conduct mental health screening to ensure optimum mother and child health after the current pandemic.

The benefits of breastfeeding on the health of the mother and child are based on strong evidence, and COVID-19 is not a definite contraindication for breastfeeding (Chowdhury et al., 2015; Lubbe et al., 2020; Mocelin et al., 2020; Williams et al., 2020). Accordingly, the decisions of the women participating in this study regarding breastfeeding (breastfeeding with infection control measures, prioritizing mother's milk for feeding the baby/child, etc.) could contribute to good health care results both in the short and long term. One study has indicated that COVID-19 is not well understood and all

maternal decisions about breastfeeding could therefore be correct in the end, but the mothers and families need more information so that they can make a conscious decision based on the currently available literature and data (Calil et al., 2020). In this context, the decisions of the women participating in the study to refuse use of medication or to continue to breastfeed while using the medication cannot be seen as conscious choices. Hydroxychloroquine and/or favipiravir are used as the treatment options for definite asymptomatic COVID-19 cases, to be followed-up as outpatients, and for possible/definite COVID-19 cases that are uncomplicated or only have mild pneumonia in Turkey. The use of favipiravir is not recommended in pregnant, puerperal, or breastfeeding women (Usta & Teksin, 2020). The COVID-19 information page for Turkey recommends the mother to stop breastfeeding if using medication, to express the milk and dispose of it, and only continue to breastfeed after drug treatment is finished (Republic of Turkey Ministry of Health, 2020). Although there is no medication approved for COVID-19 treatment by health care authorities at present (Cheema et al., 2020; Usta & Teksin, 2020), favipiravir, which is not recommended for use in breastfeeding women (Usta & Teksin, 2020), had been suggested to all of the women and some of them had inappropriately used it without discontinuing breastfeeding. This study has also shown some significant prejudice related to COVID-19 treatment in some women. Taking these findings into account, it is necessary to review COVID-19 management in breastfeeding women in an evidence-based and woman-centered manner. Midwives, nurses, and health care professionals should repeat critical information and obtain feedback to make sure the women clearly understand the provided information.

The COVID-19 symptoms experienced by the women participating in this study (fever, shortness of breath, myalgia, and decreased appetite) were consistent with the literature (Rodriguez-Morales et al., 2020). One study has reported that women whose motherhood was disrupted due to a severe disease to a level that would affect the daily functions of the women saw themselves first as a mother and second as a patient, and had difficulties giving up their maternal duties when they became ill and were not adequately supported by health care specialists in their maternal role (Vallido et al., 2010). Another study has reported that social norms are the main determinant of breastfeeding behavior (BouDiab & Werle, 2018). Breastfeeding is preferred by women and supported by the social environment in Turkey. The high breastfeeding motivation of the women participating in the study despite the physical difficulties they experienced due to the COVID-19 pandemic could similarly be related to their prioritizing their maternal role under the influence of these social norms.

The obtained results support other studies (Alianmoghaddam et al., 2019; Nguyen et al., 2017) which have reported that social media and television can be an important source of information and support among women. In addition, this study has shown that women obtain information related to various diet recommendations from these sources as regards COVID-19 symptoms and lactation management. The literature and data show that diet supplementation is not associated with COVID-19 prevention but optimal nutrition can improve health and decrease the risk and morbidity related to COVID-19 (de Faria Coelho-Ravagnani et al., 2021). Although a lactating mother has to increase food consumption to achieve good nutritional status, maternal milk has a relatively constant composition and is only selectively influenced by the mother's diet (Ares Segura et al., 2016). There is accordingly insufficient evidence that diet supplementation has any influence on women diagnosed with COVID-19. Health care professionals should provide information to the mothers that what they see on television and the social media is not always reliable. It may be useful to produce evidence-based content on these platforms that supports breastfeeding in special situations and provides support for possible breastfeeding problems.

The perceptions of the women regarding the formal and informal social support for breastfeeding and their personal experiences are related to their age and sociocultural status. Women having a higher sociocultural level take their partner's opinion and support into account more and find formal health care support more important. Among women of a lower sociocultural level, friends have the greatest effect on decisions regarding feeding the baby (Barona-Vilar et al., 2009). The support expectations of the women participating in this study from their partner, mother, or health care professionals could be related to their relatively high educational level and the fact the mother/mother-in-law is an important source of support during birth and afterwards in Turkish culture. The limitations and various bans during the pandemic have been reported to decrease professional and peer support for breastfeeding women, resulting in various difficult experiences related to breastfeeding in the mothers (Brown & Shenker, 2021). In similar fashion, we found the perceived formal and informal social support to be inadequate in this study. In addition, the findings of present study showed that the women received support on practical issues (such as the baby's position during breastfeeding) from informal sources. Health care professionals need to consider that the perceived social support could be inadequate in some women infected with COVID-19. Providing mobile applications and text-messaging programs that contain practical information as required to the women in isolation and the accompanying individuals could be an alternative method.

Another study has recommended providing women who are motivated to breastfeed, and who are stable enough to breastfeed during isolation, with training about breast expression skills, common breast problems, the symptoms of their baby's infection, and the principles of personal hygiene to protect the infant against COVID-19 infection (Shahbazi Sighaldeh & Ebrahimi Kalan, 2020). In similar fashion, the current study has shown that breastfeeding women with a diagnosis of COVID-19 expect to receive information and support from health care professionals on the treatment options and their effect on breastfeeding, insufficient milk supply, milk expression, breastfeeding support system, and discontinuing breastfeeding while using medication and then restarting it. The breastfeeding women in this study also stated that they had not found the health care professionals to be interested and communicative, that the information provided had resulted in confusion, and that they had not received satisfactory answers to their questions. A different study on breastfeeding women who did not have COVID-19 has also reported similar results (Hailes & Wellard, 2000). All of these results indicate that sensitive and coordinated teamwork which can meet all of the requirements of breastfeeding women is necessary.

5 | LIMITATIONS OF THE STUDY

This study was conducted with breastfeeding women who had a diagnosis of COVID-19 in Turkey, and this limits its generalization to other countries and contexts. However, most of the themes defined have revealed common problems that are also reflected in the global breastfeeding literature. Although the use of data collection through a telephone interview and the snowball sampling method in this study enabled the participation of subjects from various geographical regions of Turkey, it may also have excluded women from lower socioeconomic levels who did not have access to a telephone, as well as hospitalized women. Future research could focus on the impact of visiting restrictions on breastfeeding during the pandemic and the needs for childcare-related support of mothers who need to be hospitalized for COVID-19. In addition, the effect of receiving a diagnosis of COVID-19 during the pandemic could be investigated in a multi-center manner in women from various cultures and with a range of social statuses in the future.

6 | CONCLUSION

COVID-19 has resulted in a serious emotional toll on breastfeeding women. Women diagnosed with COVID-19 believed that mother's milk would protect their baby from the infection and prioritized its use. The rejection of COVID-19 treatment in breastfeeding women is associated with inadequate information, hearing about drugs that pass on to mother's milk, and individual prejudice. The physical symptoms due to COVID-19 have resulted in perceptions of difficulty in breastfeeding and inadequate milk production. The main sources of information for breastfeeding women during the pandemic are social media and television. The formal and informal support perceived by the women can decrease during the COVID-19 situation. The women have not been provided adequate information on COVID-19 treatment options and their effects on breastfeeding. The women expect to communicate effectively with health care professionals, receive psychological support from them, and obtain information and help on insufficient milk supply, milk expression, breastfeeding support systems, and interrupting and restarting breastfeeding. Putting these problems on the agenda could enable reshaping how the perceived needs of breastfeeding women with a diagnosis of COVID-19 can be met and considered in practice by midwives, nurses, and other health care professionals.

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CONFLICT OF INTEREST

The authors declare no conflicts of interest related to this study. No funding has been received for this study.

AUTHOR CONTRIBUTIONS

Özlem Aşcı and Meltem Demirgöz Bal designed the study. Özlem Aşcı recruited participants and collected data. Data analysis was performed through collaboration among all authors. Özlem Aşcı drafted the manuscript, which Ayla Ergin and Meltem Demirgöz Bal critically revised. All authors read, contributed to, and approved the final manuscript.

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