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Breastfeeding and Natural Disasters: Women's Attitudes Towards Breastfeeding and the Psychosocial Effects of the Kahramanmaraş Earthquake: A Qualitative Research

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Abstract

This study aims to determine the attitudes of women who experienced the earthquake in Kahramanmaraş, Turkey, towards breastfeeding and the psychosocial effects of the earthquake. In this qualitative study, in-depth interviews were conducted with 10 women who were breastfeeding their babies. The data were collected from individuals who experienced the February 6, 2023, earthquake between May 30 and July 30, 2023, through an online semi-structured interview form. The data collected were analyzed using the content analysis method, and the stages of creating codes, categories, and themes were systematically followed throughout this process. As a result of the interviews, three main categories were identified: the category of experiences during the earthquake, the category of baby care and breastfeeding, and the category of long-term effects experienced after the earthquake. The participants exhibited emotional responses such as fear, panic, and helplessness during the earthquake. After the earthquake, they experienced issues such as a decrease in milk production, hygiene problems, difficulties in accessing supplementary foods for their children, and weight loss. Additionally, sleep problems and earthquake-related anxiety were common. The importance of solidarity and the need for social support among mothers were emphasized. These findings emphasize that the care of women who experienced the Kahramanmaraş earthquake was affected after emotional trauma and that solidarity and social support are of vital importance in such emergencies.

Keywords: Breastfeeding, attitude, earthquake, qualitative study, woman, experience

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Emzirme ve Doğal Afetler: Kahramanmaraş Depremi Sonrasında Kadınların Emzirmeye Yönelik Tutumları ve Depremin Psikososyal Etkileri: Nitel Bir Araştırma

Öz

Bu çalışmanın amacı, Türkiye'nin Kahramanmaraş ilinde meydana gelen depremi yaşamış olan kadınların emzirmeye yönelik tutumlarını ve depremin psikososyal etkilerini belirlemektir. Bu nitel araştırmada, derinlemesine görüşme yöntemi kullanılarak bebeğini emziren 10 kadınla görüşme gerçekleştirilmiştir. Çalışmanın verileri, 6 Şubat 2023 depremini deneyimlemiş bireylerden, 30 Mayıs-30 Temmuz 2023 tarihleri arasında çevrim içi ortamda yarı yapılandırılmış görüşme formu aracılığıyla toplanmıştır. Elde edilen veriler, içerik analizi yöntemiyle değerlendirilmiş; bu süreçte kodların, kategorilerin ve temaların oluşturulmasına yönelik aşamalar izlenmiştir. Yapılan görüşmeler sonrasında 3 ana kategori belirlenmiştir: bunlar; deprem sırasında yaşanan deneyimler kategorisi, bebek bakımı ve emzirme kategorisi ve deprem sonrası yaşanan uzun vadeli etkiler kategorisidir. Katılımcılar deprem sırasında korku, panik ve çaresizlik gibi duygusal tepkiler sergilemiştir. Deprem sonrasında ise süt üretiminde azalma, hijyen sorunları, çocuklarının ek gıdalara erişimindeki zorluklar ve kilo kaybı gibi problemler yaşamışlardır. Ayrıca, uyku problemleri ve depremle ilişkili kaygılar yaygındır. Annelerin dayanışma ve sosyal destek ihtiyacına vurgu yapılmıştır. Bu bulgular, Kahramanmaraş depremini yaşayan kadınların, duygusal travma sonrası bebek bakımının etkilendiğini ve bu tür acil durumlarda dayanışma ve sosyal desteğin hayati bir öneme sahip olduğunu vurgulamaktadır.

Anahtar Kelimeler: Emzirme, tutum, deprem, nitel çalışma, kadın, deneyim

Introduction

Natural disasters are defined as events, whether human-made or natural, such as earthquakes, floods, and epidemic diseases, that lead to loss of life, pain, suffering, and significant material damage for people (Giusti, 2022). Among natural disasters, earthquakes are one of the deadliest in terms of humanitarian and economic losses due to their unpredictability and destructive effects (Centre for Research, 2020). Turkey is located on the Mediterranean-Alpine-Himalayan earthquake belt. One-fifth of the world's earthquakes occur along this belt (Kundak & Kadıoğlu, 2011). Due to its location, Turkey is among the regions with intense seismic activity, dominated by orogenic belts and volcanism. There is no place in Turkey where earthquakes are not felt; however, the majority of them are harmless (Özdoğan, 1993).

Many cities in our country are at risk of exposure to one or more natural disasters. In Turkey, earthquakes are the most frequently experienced natural disasters in terms of the number of people affected and the number of damaged settlements. When natural disasters in our country are examined, 58% of disaster victims consist of individuals affected by earthquakes (Altun, 2018).

The earthquake, with a magnitude of 7.7, which occurred on February 6, 2023, had its epicenter in the Pazarcık district of Kahramanmaraş and affected 11 provinces, is one of the largest earthquakes in Turkey and the world in the past 100 years. Nine minutes later, a second earthquake with a magnitude of 6.4 with the epicenter in Gaziantep occurred, and nine hours later, a third earthquake disaster with a magnitude of 7.6 struck the Elbistan district of Kahramanmaraş in the same region. Following the main earthquakes in the region, numerous aftershocks occurred, and these aftershocks are still ongoing (Kipay, 2023). According to a news report published on the Anadolu Agency website, based on information obtained from the General Directorate of Public Health, 4,627 babies were born within 10 days in the provinces affected by the Kahramanmaraş-centered earthquakes, starting from the first day of the disaster (Anadolu Agency, 2023; Ministry of Health, 2023).

Major disasters, particularly earthquakes, not only cause physical destruction but also create significant challenges in accessing essential healthcare services, especially for infants and their mothers. During the post-disaster emergency response phase, women face various reproductive health issues such as pregnancy, birth complications, and breastfeeding challenges (DeYoung and Suji, 2018). The inability to meet basic health needs, such as access to shelter and clean water, can severely impact the health of mothers and infants for months or even years (Brunson, 2017). Inadequate nutrition, the need for assistance with baby care, breastfeeding, and diaper changing further exacerbate parents' concerns (Suzuki, 2022). In this process, breastfeeding plays a vital role in ensuring infants' survival and healthy development (Vilar-Compte et al., 2021). Breastmilk has a unique composition designed to meet infants' essential needs, providing protection against infections with its rich antibody and nutrient content (Scime, 2017). The World Health Organization (WHO) recommends exclusive breastfeeding for the first 6 months, followed by the introduction of appropriate complementary foods, while continuing

breastfeeding until at least 2 years of age (WHO, 2003). In this context, promoting and supporting breastfeeding practices during disaster periods emerges as a vital necessity for ensuring the healthy growth and development of infants (Gerçek Öter et al., 2021).

The challenges women face during natural disasters and the specific needs of infant care can affect the overall health and well-being of society. Therefore, the present study will contribute to current understanding of the measures that need to be taken to protect the health of mothers and infants in the post-disaster period.

Research Questions

1. What are women's emotional experiences and responses during an earthquake?

2. How has the earthquake affected mothers' baby care and breastfeeding processes?

3. What are the psychosocial problems experienced by mothers after an earthquake, and what coping mechanisms do they use to deal with these issues?

Method

Research Design

This study is a descriptive qualitative research design conducted using the in-depth interview method. Qualitative researchers often use in-depth interviews or participant observation to provide a detailed portrayal of the population they study (Clair &Wasserman, 2007). This design was chosen because it offers a high degree of flexibility in describing a new phenomenon (event or experience) from the participants' perspective, providing rich data and detailing their experiences (Yıldırım & Şimşek, 2016).

Research Context

The research was conducted with breastfeeding women living in the earthquake-affected regions of Malatya, Hatay, and Diyarbakır in Turkey between 30.05.2023 and 30.07.2023.

Participants

The population of the study consisted of all breastfeeding mothers who experienced the Kahramanmaraş earthquake. The study was conducted with women who agreed to participate, using a purposeful sampling method followed by a snowball sampling method (Patton, 1987). The sample size was reached using the snowball sampling method by contacting individuals who had experienced the earthquake and their acquaintances. Efforts were made to ensure diversity in the sample, with participants from various socio-economic backgrounds, age groups, and educational levels included in the study. In this study, a semi-structured interview technique, one of the individual interview types, was used for data collection semi-structured interviews are considered the most suitable method for collecting data on others' thoughts and perceptions and capturing the diversity and differences between

participants' viewpoints (Öcal, 2007). Participants were informed about the study, and individuals who voluntarily agreed to participate were asked to refer to other individuals they knew. Data was collected through individual in-depth interviews (lasting at least 45-60 minutes) conducted online (via WhatsApp). While one researcher conducted the interviews, the other researcher took notes on the participants' responses and their reactions to the questions (e.g., facial expressions). Additionally, the interviews were recorded to prevent data loss. As the study was planned as qualitative research, the sample size was considered complete and the study was concluded when it was determined that the responses from the participants began to repeat, and no further data could be obtained. Conceptually, saturation indicates that the data collection process can be concluded when no further in-depth understanding can be developed regarding the phenomenon being studied based on the already collected and analyzed data (Yang et al., 2022). At the beginning of the interviews, verbal consent was obtained from the participants regarding the recording of the audio.

Inclusion criteria for the study

Agreeing to participate in the study

Having experienced the February 6 earthquake

Being a breastfeeding mother

Exclusion criteria for the study

Failing to answer the questions and abandoning the study midway

Having any barriers to communication

Not using the internet

Data Collection Tools

The study data were collected by using a "Personal Information Form" and a “Semi-Structured Interview Form.”

Personal Information Form

This form, prepared by researchers by reviewing the literature, includes 10 items addressing the sociodemographic characteristics of women.

Semi-Structured Interview Form

The semi-structured interview form consists of 6 open-ended questions designed to address women's breastfeeding status, their experiences with breastfeeding during the earthquake, and their attitudes toward breastfeeding. These questions are related to the Earthquake Moment and Initial Reactions, Health Status and Hospitalization, Food Supply and Nutrition, Challenges in Breastfeeding, Your Baby's Weight Gain, and Psychosocial Support. The content of the form was prepared based on expert opinions in the relevant field. During this process, consultations were conducted with 2 public

health academics, 2 midwifery academics, and 1 obstetrician. The selection of experts was made with careful consideration of their experience and knowledge in the fields of women's health, public health, and breastfeeding. These experts made significant contributions to the validity and reliability of the form, providing feedback on the scope and nature of the questions. This consulting process was conducted to enhance the content accuracy of the form and to collect in-depth data on women's breastfeeding experiences after the earthquake.

Ethical Statement

All necessary permissions were taken from the Non-interventional Clinical Research Ethics Committee of the relevant university to conduct the study (Decision No: 2023/1407093/16.05.2023) (see **Appendix-1**). It was clarified that a recorder would be used during the interviews. Confidentiality of participants' identity and sound records was guaranteed. Written (e-mail) and verbal consent were obtained from the participants.

Data Collection

Research data were collected by using the individual interview method with a semi-structured interview form. During the interviews, the depth of the conversation was increased based on the answers received and the flow of the interview, starting from predetermined questions. Data were collected from breastfeeding women living in earthquake-prone areas of Turkey between 30.05.2023 and 30.07.2023. Each interview lasted approximately. 30-45 minutes. A voice recording device was used to record the data during the interviews, and observation notes were taken by the researcher. Data was collected using the semi-structured interview form and the individual interview method. For increased reliability, the study adhered to the international COREQ checklist (consolidated criteria for reporting qualitative studies) during data collection and report preparation (Tong, 2007). Specifically, the study ensured transparency in areas such as participant recruitment, data collection procedures, and data analysis, aligning with the COREQ standards to provide a clear and rigorous account of the research process.

Data Analysis

Participants' socio-demographic data were analyzed in terms of numbers and percentages, mean, and standard deviation.

Content analysis was performed to analyze the semi-structured interview data. The data were organized into similar concepts and themes, and the findings were interpreted to enhance the readers' understanding. This analysis followed a four-stage process:

Coding the Data: The researchers examined the collected information and attempted to identify the conceptual meanings behind participants' statements. The coding process was performed by considering the purpose of the research and conceptual framework, with the data being categorized according to the concepts identified during the analysis. The coding was carried out manually, and to ensure the reliability of the analysis, three researchers independently reviewed and coded the data. Any

discrepancies were resolved through discussion, which enhanced the consistency and trustworthiness of the analysis. This collaborative approach was crucial in maintaining inter-rater reliability and ensuring a robust analysis.

Identification of Themes: Based on the identified codes, the researchers categorized the data under specific themes. During this process, the researchers ensured that meaningful categories were formed, and similar concepts were grouped under the same theme.

Organizing and Labeling Data Based on Codes and Themes: During the stages of coding and theme identification, direct quotes reflecting the participants' views, thoughts, and suggestions were used without introducing the researchers' opinions or interpretations (Çelik & Dalfidan, 2022). To facilitate the identification of interviewees, each participant was assigned a unique code (e.g., K1 for participant 1).

Interpretation of findings: In this final stage, the researchers examined the coded data and the identified themes to derive meaningful insights. The aim was to interpret the underlying meanings behind the responses and explore how they aligned with the research questions. This section serves to connect the data analysis with the broader conclusions drawn from the study, providing context for the findings and ensuring that the research outcomes are meaningful and relevant (Creswell & Poth, 2018).

Findings

During the earthquake (6 February 2023), interviews were conducted with ten breastfeeding women approximately 3-5 months after the emergency. They were all affected by the earthquake and had to evacuate their homes.

The mean age of the women was 32.80 years. Four women reported having spontaneous vaginal births, whereas six women stated that they had cesarean section. "When examining the locations where participants were during the earthquake, 3 were located in Malatya, 3 in Antakya, Hatay, 2 in İskenderun, Hatay, 1 in Yayladağı, Hatay, and 1 in Diyarbakır. The average age of the babies during the earthquake was 6.00 months, and their current average age at the moment of interviews was 10.00 months. The average pre-earthquake weight of babies was 6.50 kg, and their current average weight at the moment of interviews was 8.62 kg.

Table 1.

Categories of experiences during and right after the earthquake

Theme	Code	Participants
Emotions	Fear	K1, K2, K5, K6, K7, K8, K9
	Shock/Panic	K3, K5, K7, K8
	Indecision	K4, K10
	Helplessness	K1, K3, K5, K6, K7, K8, K9
Search for Security	Fundamental needs	K1, K2, K3, K4, K5, K7, K8, K9
	Protection of the baby	K1, K3, K6, K8, K9
Disaster's effects	Destruction and loss of house	K4, K6
	Negative effects of environmental factors	K1, K3, K4, K5, K7, K8, K10

Category 1. "Experiences During the Earthquake" (Table 1): The experiences during the earthquake include the participants' emotional experiences, their search for safety, and the effects of the earthquake.

Emotions

In the theme constructed based on the participants' expressions, the code "fear" is the most frequently expressed one and it ranks at the top. In this code, one participant used the following statements: "The fear we felt was indescribable, really; at that moment, I thought we were going to die" (K6).

Some participants stated that they felt an important shock and were disoriented. In the code "shock and panic", one participant made the following statements:

> "We woke up with an incredible quake. I immediately took my baby from the crib and told my husband that it was an earthquake. My husband said we needed to get out of the house immediately. I couldn't get up; my knees gave way, and I couldn't stand. Then, he took our child from my lap and went to the entrance of the door, saying 'Hurry up, we need to hold on'. I couldn't hold on anymore; I couldn't even walk. My husband kept holding me from both sides. And he had our child in his arms, yelling at me, saying we need to get out!" (K3).

Two participants emphasized that they were uncertain about whether to go outside immediately after the earthquake. One participant stated:

> "When I first felt the earthquake, I thought it was mild because earthquakes happen all the time in Malatya, so I thought it was only one of them, and I wasn't scared at first. My husband was very scared. After that, I saw that everyone had gone outside, and I was the only one left. I got my child ready, and then I went outside" (K10).

Some participants' expressions in the code "helplessness" are as follows:

> "People trapped in the wreckage were screaming, their cries for help could be heard, but we couldn't do anything. We were already in a very difficult situation ourselves. We couldn't even talk...paused...crying... I mean, it was like doomsday everywhere. Everyone was outside; it was like doomsday out there. We could hear voices from under the wreckage, but we couldn't do anything. My husband gave water to our child...that's it" (K1).
>
> "After the earthquake, we continued to stay in our house. Our baby was sick and had a fever. We felt very helpless. It was already cold outside, and it would have been even worse outside, so we stayed inside. Our baby's fever was high, and pharmacies didn't open after the first earthquake. So, we went upstairs to get medicines and things. We were caught in the second earthquake at that time" (K6).

Search for Security

Some participants' expressions related to meeting basic needs are as follows:

> "My husband was going back and forth to the center, and he provided for our needs. Aid was coming in. Besides, all the markets were looted. I mean, we tried to get things from the aid centers as much as possible. Everything was there in the house we went to. We tried to eat there" (K1).
>
> "To meet our needs, we did something in the early days. All the markets in Antakya were destroyed and looted; everything was scattered on the ground. We used to go into those markets. Even in the markets, we couldn't find much; things like diapers, wet wipes, and such" (K4).

Five participants stated that they first tried to protect their babies during the earthquake. Some participants' statements are as follows:

> "We thought our house was collapsing, and we wouldn't survive. Our only concern was to protect our child. The earthquake lasted a very long time" (K8).
>
> "I was scared and alone; my husband was on duty. I just covered my son and waited like that, waiting for the earthquake to pass" (K9).

Effects of Disaster

Two participants mentioned that their homes collapsed during the earthquake. One participant's statement is as follows:

> "At that time, we were not in our house in Antakya. So, it's a good thing we went to Yayladağı that night. This place also shook like a cradle, but there was no destruction here. Our house in Antakya collapsed" (K4).

In the code "negative impact of environmental factors", participants mentioned being affected by factors such as cold weather, rain, and power outages. One participant's statement is as follows:

> "The electricity went out, and it was already raining heavily outside. The outside was quite scary, you know" (K4).

Table 2.

Baby care and breastfeeding category

Theme	Code	Participants
Fundamental Needs	Heating	K3, K5, K8, K10
	Shelter	K1, K2, K3, K5, K7, K9
	Sleep	K1, K4
	Diapers	K1, K3, K4, K5
Nutrition	Breastfeeding	K1, K5, K7, K8
	Complementary food	K1, K6, K5, K8
	Baby Formula	K2, K5, K7
	Reduction/Cease of Milk Formation	K1, K2, K3, K5, K6, K7, K8, K9, K10
	Decrease/Stop of Gaining Weight	K5, K6, K7, K8, K9

Category 2. "Baby Care and Breastfeeding" (Table 2): The experiences related to the category of baby care and breastfeeding include the participants' experiences with feeding and basic needs.

Fundamental Needs

While five participants stated that they had difficulty with heating, one participant made the following statement in the code "heating":

> "During the time we stayed in the tent, there was no electricity, and it was very cold. I tried to warm our child by putting hot water on the stove and using its steam" (K1).

Most participants mentioned seeking a safe place for shelter and considered this process one of the most challenging situations. In the code "shelter", some participants' statements are as follows:

> "We stayed outside until sunrise, then we got into the car. Around seven in the morning, if I remember correctly, my husband's aunt had a detached house in the highlands, so we went there. I stayed there for almost a week. After that, I returned to Konya. In Konya, a house was arranged for us by a generous person" (K1).
>
> "Our car didn't have a place where we could stay inside. So, we just took our food and ate outside. Then, we set up a tent. There was an empty space on the side of our house, and we set up a tent there. We stayed in a tent for almost 1.5 months and spent the nights there. We would just come and get our meals in the daytime and then go back" (K1).

In the code "sleep", one participant's statement is as follows:

> "My 2-year-old son used to wake up a lot at night, crying. I was really scared that night. The baby didn't feel anything; he cried a little, but he didn't feel much. My older son felt it a lot" (K1).

In the code "diapers", participants emphasized the difficulties they experienced. In this code, some participants' statements are as follows:

"We entered the house after the earthquake, which happened at around 1 AM. We were in the car before that. We went in to get the babies' necessities" (K1).
"Then the aid trucks started coming, and they brought diapers, wet wipes, and such Alhamdulillah." (K1).

Nutrition

Four participants stated that they had difficulty finding a safe place for breastfeeding. One participant's statements are as follows:

"Breastfeeding was already the biggest problem for me because my baby was born prematurely, so he wasn't breastfeeding well, and when the earthquake happened, and we were stuck outside, it became even more difficult for me" (K7).

Four participants expressed that they had difficulty accessing complementary food. In this code, one participant's statements are as follows:

"In the beginning, we had trouble finding food for both me and my baby. Then, when aid started coming in, I began to give my baby complementary food; otherwise, it seemed impossible with just my milk" (K8).

Some mothers mentioned that they had to start using formula milk because their breastmilk decreased or stopped due to the fear experienced by mothers after the earthquake. One participant's statements are as follows:

"I didn't have much milk, and the child didn't want to breastfeed. I had no choice but to use formula milk. It was hard for him to consume the formula too. I gave him complementary food and managed somehow" (K5).

Except for one participant, all others mentioned that their breastmilk decreased or stopped. Some participants' statements are as follows:

"My milk stopped during the earthquake, and of course, I had a lot of trouble until my milk came back. I could feel that my baby wasn't satisfied, and it made me really sad" (K5).
"I used to breastfeed. But then, one breast stopped producing milk. Now, I'm breastfeeding from one breast. At that time, one breast stopped producing milk, and the other one reduced. I thought about starting formula and then solved it with complementary food later, improving my own nutrition, etc., but it was never the same as before" (K9).

In the code "decrease or stop in weight gain", some participants' statements are as follows:

"My baby's weight gain stopped, and it even started to drop because, previously, I was giving complementary food alongside breastfeeding. During the earthquake, my milk stopped, and my baby wasn't taking the complementary food well either. He was already born with low weight, and this earthquake made our lives even more difficult" (K5).
"I take him to the health center now, and he hasn't gained even a kilo in 2 months. Unfortunately, his weight gain and development are not going well" (K7).

Table 3.

The long-term effects of the earthquake fall under the category

Theme	Code	Participants
Psychological Effects	Earthquake anxiety	K1, K2, K4, K5, K6, K7, K8, K9, K10
	Sleep problems	K2, K5, K6, K7, K8, K9, K10
	Fear of not being able to protect her baby	K1, K6, K9, K10
Social Solidarity	Solidarity	K1, K3, K6, K7
	Psychosocial support	K1, K2, K3, K4, K5, K7, K8, K9, K10

Category 3. "Long-Term Effects of Earthquakes" (Table 3): The long-term effects after the earthquake include the participants' psychological effects and social solidarity.

Psychological Effects

Experiencing an earthquake triggered concerns among most participants that another earthquake might occur. Some participants expressed their thoughts as follows:

> "In the beginning, it felt like chandeliers were swaying at night, and I couldn't get rid of the fear that there might be another earthquake" (K5).
> "I still can't get rid of the feeling that another earthquake might happen at any moment. When something shakes, it feels like an earthquake is happening to me" (K8).

Seven participants mentioned experiencing sleep problems for an extended period after the earthquake. They had difficulty falling asleep or frequently woke up during the night. The statements of one participant are as follows:

> "I had sleep problems for a long time. I can say it's still ongoing. For example, at night, when it becomes very quiet, when it rains, it reminds me of that night. I can't help but feel anxious, unwilling to sleep, I mean, there's a fear, whether I want it or not" (K2).
> In the code "fear of not being able to protect the baby", one participant's statement is as follows: "I kept thinking that something would happen constantly, aftershocks would come, and if I had to take the child" (K9).

Social Solidarity

Some participants emphasized the importance of solidarity during this period. One participant's statement is as follows:

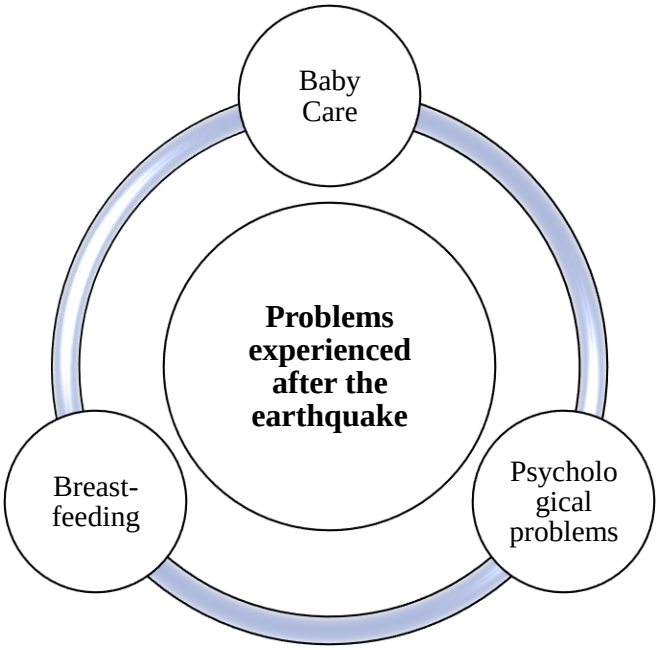
> "Right now, we are staying at a benefactor's house. Our in-laws brought us here; we came together. We are currently residing here" (K1).

Almost all participants expressed the need for professional psychosocial support during this period. But, unfortunately, none of them received any support for various reasons. One participant statements are as follows:

> "I didn't receive psychosocial support. I wish I could have received it, especially help with solving my baby's breastfeeding problem. I was really desperate; it would have been so nice if someone had reached out to me. I don't know where or how I could have reached out. So, I didn't get any support, I mean any kind of support" (K7).

Figure 1.

Problems women experience after the earthquake



Discussion

Even though the basic needs of pregnant and breastfeeding women largely overlap with the needs of the general population, they also have specific requirements that need to be considered during emergency interventions (Giusti et al., 2022). Women, children, and infants are the most at-risk and affected groups in any disaster or emergency (Gerçek Öter et al., 2021).

In the present study, carried out by aiming to determine the emotional experiences of women and their attitudes toward breastfeeding during the centered in Kahramanmaraş earthquake in Turkey, participants reported experiencing fear, shock, indecision, and helplessness during the earthquake. Immediately after the earthquake, they made efforts to meet their basic needs and protect their babies and mentioned that environmental factors such as rain and cold made people's lives even more challenging. Many studies have reported the adverse effects of natural disasters on the physical and psychological health of women (Fatema et al., 2019; Hawkins et al., 2019; Kipay, 2023). One of the individuals interviewed in this study expressed her fear and said "The earthquake lasted quite a long time. It started slowly. I thought it would stop, I thought it would stop, but it didn't; it kept getting stronger. We already know the rest. It's hard to even talk about it. I was really scared even while telling it" (K8). As the present research findings indicate, early-stage mental health problems are characterized by shock, anxiety, and sleep disorders (Fatema et al., 2019; Kipay, 2023; Ren et al., 2014).

Other primary concerns, supported by the present study's results, involve individuals losing their homes, being displaced, and moving to other temporary housing solutions (Brunson, 2017). One participant expressed, "They said our house had minor damage, but for us, it's too damaged, so we can't

enter our house. The stairs collapsed. We can't stay in the container. The container is made of iron, so it's too hot. During the day, I go to the mall or somewhere cool, and in the evenings, we come back to the container to sleep, you know" (K3). In such situations, particularly the pregnant and breastfeeding women face challenges related to their circumstances. Consistent with the literature, families that were not provided with temporary shelter or tents in a timely manner had to live in limited safe spaces. This increased the vulnerability of displaced mothers and posed difficulties in breastfeeding. Previous studies showed that disasters increase women's vulnerability and negatively affect their preparedness and capacity to fulfill childcare responsibilities, including breastfeeding (Grown et al., 2016; Hirani et al., 2021). While the earthquake itself is the most significant source of stress, the aftershocks, poor sanitation, lack of access to healthcare, and inadequate care, together with an increase in inappropriate health behaviors, injuries, and housing problems, are additional sources of intense psychosocial stress (Fatema et al., 2019; Kipay, 2023; Ren et al., 2014).

The endangerment of children's health is one of the severe consequences of natural disasters. Child diseases and deaths increase due to displacement and inadequate nutrition caused by disasters. As can be seen in the literature, it is inevitable that the prevalence of breastfeeding decreases during disasters and it leads to increased childhood malnutrition (Grubesic & Durbin, 2022; Hirani & Kenner, 2011; Hirani et al., 2019). During natural disasters, breastfeeding-related challenges are observed anywhere around the world, but they are particularly problematic in low- and middle-income countries. A study carried out after the 2010 earthquake disaster in Haiti reported malnutrition and developmental delays due to the use of alternative foods instead of breast milk; participants described their babies' weight gain as slowing down, stopping, and declining, saying, "My baby's weight gain stopped, and it even started to drop" (K5). "I now take him to the health center, but he didn't gain even 1 kilogram in two months. Unfortunately, their weight gain and development are not good" (K7). "The child's weight gain suddenly stopped. The child became very thin" (K8). Since breast milk contains many beneficial bioactive substances, it is the preferred and safest way to feed babies during disasters and displacement (Branca & Schultink, 2016; WHO 2016). Despite the benefits of breastfeeding, inappropriate infant feeding practices are reported during disasters, displacement, and the placement of displaced communities in disaster relief camps (Branca & Schultink, 2016).

Examining the literature, it was reported that mothers who have been displaced in disaster relief camps are at risk of discontinuing breastfeeding (Carothers & Gribble, 2014; Eidelman, 2013; Hirani & Kenner, 2011). Conditions directly and indirectly affecting the breastfeeding practices of these women include inadequate and unfair distribution of free infant formula, irregular distribution of baby supplies, lack of safe spaces for breastfeeding, lack of breastfeeding counseling facilities or difficulties in access, misconceptions about breastfeeding, gender-based restrictions, and maternal health risks. The lack of privacy or an environment unsuitable for breastfeeding, limited fluid and food intake for mothers in an environment without privacy or an environment unsuitable for breastfeeding, as well as other factors such as stress, fatigue, and often time constraints due to constant movement, have also limited

breastfeeding capabilities (Bukhari et al., 2017; Codjia et al., 2018). Participants in this regard have expressed similar statements. Some of these are as follows: "I tried to breastfeed in the car (K1). "It was very difficult to breastfeed in the tent, in the car. There were moments when I couldn't breastfeed" (K8).

Mothers, who choose to breastfeed during disasters, realized that displacement creates additional challenges. Finding comfortable, private spaces and time for breastfeeding was difficult. Stress and disruption of daily routines created new challenges for breastfeeding women. Displacement, along with the loss of health and social infrastructure, often led to the breakdown of family and friend networks that typically support breastfeeding mothers (Hwang et al., 2021). During disasters, mothers' breastfeeding problems include the inability to produce sufficient and quality breast milk due to stress, food insecurity, and disrupted nutrition. While stress and mild to moderate maternal malnutrition might not significantly change the quality or quantity of breast milk (Gribble, 2011; WHO 2007), many mothers stop breastfeeding or begin to provide alternative foods instead of breastmilk in humanitarian emergencies because they perceive their breastmilk as unsafe or inadequate for their children. In addition, many of them perceived that breastmilk was insufficient to satisfy their babies (Dörnemann & Kelly, 2013; Gribble et al., 2011; Sulaiman et al., 2015). Participants' perception of insufficient milk was quite clear, and most of them made similar expressions. Some of these include: "I couldn't eat food, couldn't drink water, so we couldn't do anything, my milk decreased inevitably. I mean, I felt that my baby wasn't satisfied. I also didn't feel the milk flowing from my breasts" (K2). "My milk wasn't enough for my baby, because of fear and panic, my milk had decreased, but I still continued to breastfeed, but I started supplementing with formula because I realized he wasn't satisfied" (K7). The availability of individuals, who can support breastfeeding during disasters and displacement, plays an essential role. Displaced mothers often lack access to social support, breastfeeding counseling services, and trained healthcare professionals or peer counselors in disaster relief camps. The absence of necessary support prevents mothers in these camps from continuing their breastfeeding practices or choosing the option of relactation when alternative feeding products are not available (Abney, 2010; Sulaiman et al., 2014). Restarting breastfeeding after not breastfeeding for a few weeks during a crisis such as a disaster. Although breastfeeding is possible with proper breastfeeding counseling, support, skin-to-skin contact, and frequent breastfeeding, breastfeeding myths lead to its discontinuation or the use of breast milk substitutes, especially formula (Dörnemann & Kelly, 2013; WHO 2007). The results achieved in the present study are consistent with these findings.

Disasters disrupt normal living conditions and lead to emergencies that exceed the adaptive capacity of the affected community. Simultaneously, they also create short and long-term effects from ecological, political, economic, developmental, social, physical, and psychological aspects (Adhikari Baral & Bhagawati, 2019; WHO, 2002). Women are affected differently from men during disasters and displacements, partly due to biological differences. It was also emphasized in the literature that displaced mothers require sensitive care and breastfeeding support for pre-existing health issues or any newly developed psychiatric conditions (Gribble et al. 2011; Hirani et al. 2019). The literature highlights that

the arrangements in disaster relief camps are often not suitable for women (WHO, 2002; Hirani et al. 2019). Despite providing basic first aid, food, and shelter to families affected by disasters, the needs and rights of women with young children are often overlooked. Especially in countries with limited resources, displaced women, who make up the majority of the displaced community, face malnutrition and relevant conditions due to insufficient nutrition (Bukhari et al. 2015; Hirani et al. 2019). One participant stated, "We had a shortage of food in the beginning, and I struggled to find anything to feed myself and my baby. Then, when aid arrived, I started giving supplementary food to my baby; otherwise, it was impossible with just my breast milk" (K8). "We experienced a shortage of supplies. Yes, for example, we needed bread and water. Believe me, even dirty water was not available to us. Even bread was not reaching us" (K5).

Breastfeeding support is defined as the lack of sufficient resources to overcome obstetric emergencies and gender role expectations in caring for sick and injured family members, including small children. Many women encounter problems such as physical trauma/injury, death of a close family member, and separation from their social networks during disasters and subsequent displacements (Brunson, 2017). Some participants expressed, "Some of my family members were trapped under the wreckage, but fortunately, they were rescued safely. Unfortunately, many of our neighbors and relatives died" (K2).

Homeless and displaced women with young children in disaster relief camps are often dependent on donated necessities such as clothing and food. They typically live in small spaces that are not suitable for women and experience trauma related to displacement. Traumatized mothers with young children often suffer from depression and post-traumatic stress disorder (PTSD), making it difficult for them to meet their babies' nutritional needs (Karakaya et al. 2004; Salcıoğlu et al. 2003). "I couldn't get psychosocial support. I didn't see anyone here who could help me by listening to my problems and finding solutions. I was very worried about my baby's nutritional condition during that time. If someone could have helped and supported me in this matter, maybe my milk wouldn't have dried up, or it would have happened sooner" (K5).

Trauma developing after the earthquake is experienced by more than two-thirds of the general population at some point in their lives, leading to a wide range of mental and physical health outcomes (Kar & Bastia 2006). "I still can't get rid of the feeling that there might be another earthquake at any moment. Whenever something shakes, it feels like an earthquake to me" (K8).

Previous studies claimed that more than 50% of victims can develop chronic depression, generalized anxiety, and post-traumatic stress disorder (PTSD). This can lead to long-term suffering, disabilities, and income loss (Karakaya et al. 2004; WHO, 2002). The majority of participants in the present study reported a significant decline in their income after the earthquake.

Psychopathologies that significantly distinguish cases from non-cases were a combination of depression, anxiety, and post-traumatic stress symptoms. Cases exhibited significantly more PTSD

symptoms: nightmares, flashbacks, avoidance, difficulty recalling certain aspects of the disaster, lack of strong emotions about certain things, feeling life will be cut short and impending death, sleep problems, difficulty concentrating, irritability, and continued sadness due to these symptoms (Karakaya et al. 2003; Neria et al. 2008; Tempesta et al. 2013). Participant statements include, "I still can't be alone, for example, my sleep problems have decreased compared to the early days, but rainy nights still scare me, I used to have nightmares and couldn't get any sleep at all" (K7).

Conclusion

This study has revealed the challenges and psychosocial impacts experienced by women during the breastfeeding process in the aftermath of the Kahramanmaraş earthquake. During the earthquake, emotional responses such as fear, panic, helplessness, and destruction were observed, leading to issues such as reduced or halted milk production, difficulties in children's access to supplementary food, and decreased weight gain. Furthermore, housing and hygiene problems, sleep disturbances, and anxiety related to the earthquake posed significant barriers. Women struggled to access psychosocial support during the post-earthquake period, which negatively affected baby care. Due to a lack of research in this field, the social, political, cultural, and economic factors that shape these mothers' breastfeeding experiences are overlooked at this moment. It is critically important to address the knowledge gaps identified in order to examine the facilitators of and barriers to breastfeeding practices among mothers living in disaster relief camps.

In this process, solidarity and social support have played a crucial role. The findings of the study emphasize that baby care was affected following emotional trauma, and that solidarity and social support are of vital importance in emergencies. Moreover, it highlights the need to strengthen psychosocial support mechanisms tailored to women's needs during such crisis situations. Future research should focus on developing strategies to provide more support for women's breastfeeding processes after disasters. Clinical practices should prioritize psychosocial support and logistical assistance for breastfeeding mothers during and after disasters. These findings could serve as an important guide for both healthcare professionals and policymakers.

Limitations

This research was conducted using qualitative design and employed the snowball sampling method. Snowball sampling is a method based on starting with a specific group of individuals and selecting participants through referrals from these individuals. Since this approach forms the sample from a limited group, the generalizability of the findings is restricted. Additionally, as this method relies on participants' social networks and accessibility, it may not reflect diverse perspectives from a larger population. Moreover, due to the nature of qualitative research, as the data are based on participants' subjective experiences, the results reflect individual experiences, and it is difficult to make broad generalizations. The limitations of the study also stem from the fact that it was conducted only with women affected by a specific event (the earthquake), meaning that it may not encompass the experiences

of individuals living in different regions or affected by other types of disasters. Finally, this research is limited to data collected during a specific period and does not account for the impact of factors that may change over time.

Contribution Statement/ Araştırmacıların Katkı Oranı

All researchers contributed equally to the study. / Çalışmaya tüm araştırmacılar eşit oranda katkı sağlamıştır.

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Declaration of Competing Interest / Çatışma Beyanı

There is no conflict of interest. / Çıkar çatışması bulunmamaktadır.

Ethics Committee Approval / Etik Onay

Ethics committee approval was obtained for this study. / Etik kurul onayı alınmıştır.

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Appendix-1

T.C.
KARABÜK ÜNİVERSİTESİ REKTÖRLÜĞÜ
Girişimsel Olmayan Klinik Araştırmalar Etik Kurulu

Sayı : E-77192459-050.99-243093 16.05.2023
Konu : 2023/1407 Nolu Karar

Sayın Dr. Öğr.Üyesi Ayşe ÇUVADAR

Girişimsel Olmayan Klinik Araştırmalar Etik Kurulumuza sunmuş olduğunuz **"Emzirme Ve Doğal Afetler: Türkiye Kahramanmaraş Depreminde Kadınların Emzirmeye Yönelik Tutumları"** başlıklı araştırma projeniz amaç, gerekçe, yaklaşım ve yöntemle ilgili açıklamaları açısından Girişimsel Olmayan Klinik Araştırmalar Etik Kurul yönergesine göre incelenmiş olup etik açıdan uygun olduğuna oy birliği ile karar verilmiştir.

Bilgilerinize rica ederim.

Doç. Dr. Erkan DOĞAN
Kurul Başkanı

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