ORIGINAL RESEARCH ORİJİNAL ARAŞTIRMA

Midwives' Experiences After Kahramanmaraş Earthquake: A Metaphor Analysis

Kahramanmaraş Depremi Sonrası Ebelerin Deneyimleri: Nitel Araştırma

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ABSTRACT Objective: This study aimed to explore midwives' experiences in providing care during the February 6, 2023, earthquake in Türkiye. **Material and Methods:** A phenomenological approach was used in this qualitative study. The sample consisted of 76 midwives who served during the Kahramanmaraş earthquake on February 6, 2023, selected through purposive sampling. Data were collected with the interview form prepared by the researchers. The midwives were asked to complete the following sentence to express their experiences of providing care in the earthquake zone: Providing midwifery care during an earthquake is "like _____ because _____". Participants were requested to fill in their answers in 2 stages: In the 1st blank, they were to provide metaphors, and in the 2nd blank, they were to explain the reasons for their chosen metaphors. Interviews were conducted individually and the data were analyzed using content analysis. **Results:** This metaphor analysis revealed 52 valid metaphors that midwives used to describe their experiences of caregiving in earthquakes. These metaphors were grouped under 2 main themes and 5 sub-themes. These main themes were "positive aspects" and "negative aspects". These subthemes were "compassion", "giving hope/healing", "hero/lifesaver", "difficulty" and "uncertainty". **Conclusion:** Midwives play an active role in natural disasters. The issue of midwifery service during disasters should be addressed more comprehensively in midwifery training programs.

Keywords: Disasters; earthquake; metaphor analysis;
              midwifery; midwives

ÖZET Amaç: Bu çalışmanın amacı, 6 Şubat 2023'te Türkiye'de meydana gelen deprem sırasında ebelerin bakım sağlama deneyimlerini incelemektir. **Gereç ve Yöntemler:** Bu nitel çalışmada, fenomenolojik bir yaklaşım kullanılmıştır. Örneklem, amaçlı örnekleme yoluyla seçilen 6 Şubat 2023'teki Kahramanmaraş depremi sırasında görev yapan 76 ebeden oluşmuştur. Veriler, araştırmacılar tarafından hazırlanan görüşme formu ile toplanmıştır. Ebelerden deprem bölgesinde bakım sağlama deneyimlerini ifade etmek için şu cümleyi tamamlamaları istendi: Deprem sırasında ebelik bakımı sağlamak "_____ gibidir çünkü _____". Katılımcılardan cevaplarını 2 aşamada doldurmaları istendi: İlk boşlukta metaforlar sağlamaları ve ikinci boşlukta seçtikleri metaforların nedenlerini açıklamaları istendi. Görüşmeler bireysel olarak gerçekleştirildi ve veriler içerik analizi kullanılarak analiz edildi. **Bulgular:** Bu metafor analizi, ebelerin depremlerde bakım verme deneyimlerini tanımlamak için kullandıkları 52 geçerli metaforu ortaya koydu. Bu metaforlar 2 ana tema ve 5 alt tema altında gruplandırıldı. Bu ana temalar "olumlu yönler" ve "olumsuz yönler" idi. Bu alt temalar "şefkat", "umut vermek/şifalandırmak", "kahraman/cankurtaran", "zorluk" ve "belirsizlik" idi. **Sonuç:** Ebeler doğal afetlerde aktif rol oynarlar. Afetlerde ebelik hizmeti konusu ebelik eğitim programlarında daha kapsamlı bir şekilde ele alınmalıdır.

Anahtar Kelimeler: Afetler; deprem; metafor analizi;
                      ebelik; ebeler

Disasters are situations whose time and place of occurrence cannot be predicted due to their nature and in which society's defense mechanisms often fail.[1]

Natural disasters, such as earthquakes, disrupt health services, reduce access to basic resources, and increase health risks for vulnerable population groups. On February 6, 2023, 2 major earthquakes

with moment magnitudes of 7.8 (±0.1) and 7.5 occurred in Türkiye, approximately 9 hours apart, centered in the Pazarcık and Elbistan districts of Kahramanmaraş province.[2] Approximately 22,800 pregnant women resided in the earthquake-affected region, where more than 50,000 people lost their lives, and an estimated 416,000 women and girls of reproductive age were reported to be in need of sexual and reproductive health services.[3]

According to the World Health Organization, "midwives are uniquely able to provide essential services to women and newborns in even the most difficult humanitarian, fragile and conflict-affected settings," making them critical to maintaining maternal and neonatal health during and after disasters.[4]

During such crises, midwives' expertise in providing antenatal, intrapartum, and postnatal care becomes even more vital. Following the April 2015 Nepal earthquake, United Nations Population Fund's (UNFPA) 2020 "Dignity First" report highlighted that midwife-led field units sustained antenatal care coverage for over 85% of registered pregnant women and implemented digital client-tracking systems that improved follow-up rates by nearly 30%.[5]

Moreover, midwifery care extends beyond clinical services; for women and newborns facing the psychological and physical effects of disasters, it includes emotional support, reassurance, and guidance.[6]

In Türkiye, recent evidence confirms that midwives contribute not only to clinical care, but also to logistics, psychosocial support, and disaster preparedness. An analysis of perinatal services following the February 2023 Kahramanmaraş earthquakes showed that mobile clinics-equipped with disaster-specific midwifery training and pre-positioned maternal health kits-reduced delays in pre- and postnatal services by more than 30%.[7] These interventions addressed critical shortages of maternity supplies reported by over 70% of health facilities and ensured continuity of care across 11 provinces, as noted in UNFPA's Rapid Needs Assessment and Situation Report #2.[8]

Additionally, a multi-sectoral needs assessment by United Nations High Commissioner for Refugees identified psychosocial support counselling and safe birth kits as top priorities for displaced mothers, leading to the rapid deployment of midwife volunteers trained in "Psychological First Aid" to shelter areas.[9]

Studies focusing on midwives' experiences and views of caregiving in earthquakes can provide a critical knowledge base for improving health care in disaster situations. Such research allows for a deeper understanding of the challenges midwives face, the resources they require, and the methods they find effective in practice. It also raises awareness of the importance of midwifery services in disaster management.[7]

While serving earthquake victims, midwives face numerous challenges, including difficult and stressful work-ing conditions, unfavorable teamwork conditions, feelings of inadequacy, lack of physical and mental preparation during the assignment process, and ethical dilemmas.[10,11] However, there is very little information on how midwives are personally affected by disasters impacting their own communities.[12] Midwives' perspectives not only shed light on field realities, but also help strengthen collaboration with disaster response teams, identify gender-based health needs, and optimize services for vulnerable populations.[13-15]

The current study was planned to determine the perceptions of midwives about caregiving in the event of a severe earthquake. By analyzing the metaphors used by midwives to express their expectations and motivations in such contexts, the study aims to generate insights that may inform curriculum development, educational discourse, and in-service training practices related to midwifery.

MATERIAL AND METHODS

PURPOSE AND TYPE OF THE STUDY

This study was conducted using "phenomenological design", one of the qualitative research methods, to determine the metaphors used by midwives to describe their experiences of providing midwifery care in earthquakes.[16] The metaphor method, one of the qualitative data collection tools, was used to collect strong and rich data on this subject. Metaphor is used to express a concept with another concept with simi-

lar characteristics. It has great power in understanding complex and abstract ideas. In metaphor studies aiming to reveal meaning through language, participants are asked one or more open-ended questions and metaphors related to the research topic are obtained.[17] Within the framework of this general purpose, the research question is as follows:

■ What metaphors do midwives use for caregiving during an earthquake?

■ Under which conceptual themes can the metaphors for caregiving during an earthquake expressed by midwives be grouped in terms of their common features?

STUDY POPULATION AND SAMPLE SELECTION

The determination of the study group was carried out using the "Criterion Sampling Method", one of the purposive sampling methods. This sampling method is the study of situations that meet a set of predetermined criteria.[18] These criteria were set by the researchers. The criteria were determined as being a midwife living in Türkiye and serving in the regions significantly damaged after the 2 major earthquakes that occurred on February 6, 2023. The researchers excluded midwives who withdrew from the study at any stage and answered the survey without using metaphors.

DATA COLLECTION TOOLS

The study data were obtained using "Midwifery Information Form" and "Midwifery Experience Form in Earthquakes". The data collection tools were developed specifically for this study, based on the literature.[19] An English language version of these forms has been uploaded as a supplementary file (Appendix: Questionnaire Form). The Midwifery Information Form includes questions about the participants' demographic and educational characteristics. Midwifery Experience Form in Earthquakes is a semi-structured interview form consisting of questions to evaluate midwives' experiences in earthquakes while providing care with a metaphorical method. In this form, midwives were asked to complete the sentence "Providing midwifery care during an earthquake is like … because ...." and write the 1st answer that came to their mind to describe their ex-

periences with a metaphor. It was explained that metaphor or simile can be made about anything (concrete, abstract, animate or inanimate) and the reason for the metaphor should be explained with because.

Procedure

A pilot interview was conducted with 5 midwives to confirm the clarity of the data collection form. After the study was explained to the midwives both verbally and in writing, they were asked to sign the consent form and indicate their willingness to participate in the study. Individual in-depth interviews were conducted with each participant using a semi-structured interview form. Interviews were conducted in quiet and private interview rooms in the earthquake zone. The average length of the interviews varied between 30-40 minutes. While the research team is composed entirely of midwives, one of the researchers has also completed training in Interpersonal Relationship Psychotherapy and holds a certificate in this field (BU). This provides an important assurance that the psychological state of the participants does not affect the research process and that potential psychological risks are avoided. In the study, 97 midwives working in the earthquake zone were interviewed.

DATA ANALYSIS

The analysis of the data was carried out using the content analysis method. Content analysis involves the meticulous, systematic examination and interpretation of data to identify patterns, themes, biases, and meanings related to the essence of the research. The aim of content analysis is to reveal the concepts and relationships that can explain the perspectives of the participants and the data obtained through file and document analysis. In content analysis, it is of great importance to cluster similar data under certain concepts and themes and to organize them in a way that facilitates the reader's understanding.[20] The analysis process was supported by using MAXQDA 2022 software. The recorded interviews were transcribed on the same day to minimize the recall errors reported by the participants. In addition, the recorded interviews were replayed at least twice and the transcriptions were cross-checked for accuracy by the researchers (BU, ED).

The data were 1st read several times by the researchers (BU, ED) to identify meaningful expressions and convert these expressions into open codes. Similar codes were grouped to create themes.

The coding process was carried out independently by 2 researchers. The agreement between researchers was calculated with Cohen's Kappa coefficient and was found to be 0.82%; this indicates a high level of agreement.[21] Differences of opinion during the coding process were resolved through mutual discussions and in cases where consensus could not be reached, a 3rd expert researcher's opinion was sought. Data saturation was determined according to the situation where no new themes or information emerged. After the 70th participant, repetitive information began to be obtained, and with the 76th participant, the data collection process was terminated after it was seen that a meaningful integrity was achieved between the themes.

Rigour and Trustworthiness

The study was reported following the Consolidated Criteria for Reporting Qualitative Research checklist.[22] Four primary standards of trustworthiness were identified for the study.

To ensure internal validity, the interview form was developed based on a review of relevant literature and the conceptual framework was consistently applied. The study was conducted within a homogeneous group, and an extensive period was dedicated to data collection to find new participants (Credibility). Two independent researchers coded and categorized the data separately, and their results were then evaluated for consistency. Disagreements were resolved through discussion until a consensus was achieved. The codes and themes were reviewed by an external expert with experience in mental health, outside the research team (Confirmability). To enhance construct validity, various data collection methods were employed, including individual interviews, voice recordings, and sociodemographic data forms (Dependability). The study's transcripts maintained the integrity of the codes and themes, and the findings were reviewed and validated by another researcher with qualitative research expertise (Reliability). To address external validity, participant recruitment was prolonged, and after data analysis, interview transcripts were returned to a participant to verify the accuracy of the codes and themes (Transferability). Additionally, the themes and codes derived from the metaphors were presented to 3 experts in women's mental health who are experienced in qualitative research, and their feedback was solicited.

ETHICS OF THE STUDY

Ethical approval was received for this study from the Social Sciences Research Ethics Committee (date: November 13, 2023; no: 2023/334). Informed consent was obtained from all participants who agreed to participate in the study. All stages of the study were conducted in accordance with the Declaration of Helsinki. Written and verbal consent was obtained from the participants. To ensure confidentiality and anonymity of information, participants were numbered M1, M2, etc.

RESULTS

The data of 21 midwives included in the study were excluded from the analysis since they contained incomplete information [(the metaphor was written, but the rationale was not written (n=18), missing data form (n=3)]. Thus, the study analyses were completed with 76 participants. Table 1 contains the sociodemographic characteristics of the midwives participating in the study. Whereas the mean age of midwives was 31.00±7.15, the time they spent in the profession was 9.44±8.28 years. Most midwives had a bachelor's degree (n=70). Moreover, most of them worked in the delivery room (n=40). The rate of midwives who do their job voluntarily is 97.4%, and the rate of midwives who are members of professional organizations is 31.6% (Table 1).

In this section, the metaphors produced by midwives about the care they provided in the earthquake and the main and sub-themes developed based on these metaphors are presented. It was found that midwives produced 52 different metaphors about providing midwifery care in earthquakes, these metaphors were grouped under 2 main themes and 5 sub-themes (Table 2). Some of the midwives' statements regarding providing midwifery care in earthquakes are presented below (Table 3).

MAIN THEME 1: POSITIVE ASPECTS

Sub-theme 1: Compassion

Four different metaphors were produced in the last category created from metaphors concerning providing midwifery care in case of an earthquake. "Motherhood" was the most frequently produced metaphor in the category, used by 10 midwives.

Sub-theme 2: Giving Hope/Healing

Twenty midwives mentioned the hope-inspiring and healing aspects of providing care in earthquakes with 13 different metaphors. "Miracle" was produced the most in this category with 6 repetitions.

Sub-theme 3: Hero/Lifesaver

Twenty different metaphors in this category revealed that providing care in earthquakes is heroism and life-saving. Midwives produced the highest number of metaphors in this category. It was found that 26 of

TABLE 2: Midwives' metaphors and metaphor themes regarding providing midwifery care in disasters (n=76)		
Difficulty (n=10)	**Uncertainty (n=7)**	**Hero/Lifesaver (n=26)**
1. fire	1. breathlessness x3	1. lifesaver
2. disaster	2. despair x2	2. breathing life into
3. destiny	3. a painting that	3. sacrificing one's life
4. judgment day	contains every emotion	4. life buoy
5. hand grenade with	4. mixed feelings	5. watering the flower
the pin pulled out		6. pride
6. getting stuck in		7. source of pride
7. zombie		8. life-saving
8. compelling		9. hero x4
9. struggle with difficulty		10. dedicating oneself to duty
10. performing compulsory		11. guardian angel
service		12. sacred
		13. holiness
		14. angel x2
		15. giving breath
		16. professionalism
		17. superheroism x2
		18.national duty
		19. helping hand x2
		20. helper
Giving hope/Healing (n=20)	**Compassion (n=13)**	
1. flashlight x2	1. motherhood x10	
2. life x2	2. a matter of will	
3. peace	3. compassion and	
4. shedding light on the darkness	courage	
5. giving hope in the	4.mercy/compassion/	
midst of darkness	angel	
6. miracle x6		
7. water		
8. therapy		
9. hope		
10. life		
11. continuation of life		
12. being a home		
13. taking care of flowers (labor)		

TABLE 1: Findings regarding midwives' sociodemographic characteristics (n=76)		
		$\overline{X}\pm SD$
Age		31.00±7.15
Time spent in the profession		9.44±8.28
		% (n)
Marital status	Single	42.1 (32)
	Married	57.9 (44)
Number of children	None	47.4 (36)
	1	21.1 (16)
	2	23.7 (18)
	3+	7.9 (6)
Education level	Associate degree	7.9 (6)
	Bachelor's degree	92.1 (70)
Unit worked for	Delivery room	52.6 (40)
	Family health center	10.5 (8)
	Maternity service	17.1 (13)
Operating	Operating room	3.9 (3)
	Emergency department	9.2 (7)
	Neonatal intensive care unit	3.9 (3)
	Other	2.6 (2)
Doing the job with love	Yes	97.4 (74)
	No	2.6 (2)
Membership in professional organizations	Yes	31.6 (24)
	No	68.4 (52)

SD: Standard deviation

the midwives who produced valid metaphors created metaphors within the scope of this category. "Hero" was the most used metaphor in the category.

MAIN THEME 2: NEGATIVE ASPECTS

Sub-theme 4: Difficulty

Within this category, midwives included statements about the difficult aspects of providing care in case of an earthquake. Fifteen different metaphors were produced in this category, and the metaphors of "despair" and "tiring" were used the most with 2 repetitions.

Sub-theme 5: Uncertainty

Within this category, midwives included statements about the uncertainty of providing care in case of an earthquake. Four different metaphors were produced in this category.

TABLE 3: Main themes, sub-themes, and participant common		
Main themes	**Sub-themes**	**Participant common**
Positive aspects	Compassion	"-It is like motherhood. We were caring for patients with heart and soul while aftershocks were continuing, at the time when no one could go to their homes or enter buildings due to fear. During the earthquake, we took newborns in our arms and ran away, wrapped them in our coats and acted as mothers for them under snow and rain. We thought about babies first of all and wrapped them; we ran to them first instead of running away during the earthquake." (Midwife 18) "-It is like motherhood because your patients are always your priority. Newborns are like your offspring. You approach pregnant women and their babies with a protective attitude, as in motherhood, and put your feelings in the background." (Midwife 45)
	Giving hope/ Healing	"-It is like a flashlight in the dark because, at that moment, everyone was sad and in the dark due to the fear and magnitude of the earthquake. Being able to heal that wound even a little bit felt like light." (Midwife 23) "-Providing midwifery care during an earthquake is like shedding light in the darkness in this age of losing hope because it is a new breath, a new page." (Midwife 33)
	Hero/Lifesaver	"-It is like secret superheroism; nobody knows you, what, how and under what conditions you do." (Midwife 9) "-It is like sacrificing your life because we didn't even think about our own life, we entered buildings and did everything for those infants and their mothers to be well." (Midwife 11) "-Providing midwifery care during an earthquake is like being a guardian angel because being with women, protecting and supporting them even in the most difficult times is an activity beyond a profession." (Midwife 46) "-Providing midwifery care during an earthquake is like being a hero because you risk everything for the life of the pregnant woman and the infant while your own life is at risk." (Midwife 67)
Negative aspects	Difficulty	"-Providing midwifery care in earthquakes is like despair because it means dealing with impossibilities and emotional situations at the same time under difficult conditions and standing strong to do your best." (Midwife 7)
	Uncertainty	"-It is like climbing Mount Qaf alone because we tried to help pregnant women in need during the earthquake, away from our families and children, and hold their hands." (Midwife 51)

DISCUSSION

It ensures the continuity of health services during an earthquake with midwifery, emergency birth, 1st aid and psychosocial support. It strengthens social resilience by informing women.[1,23] This study aims to explore the experiences of midwives providing care in earthquake-affected areas using metaphorical methods. Two main themes-positive aspects and negative aspects-were identified and will be discussed in light of the literature.

The metaphor of "motherhood" was most frequently used by midwives to express the compassion they felt while providing care during an earthquake. This metaphor reflects their nurturing, protective, and empathetic stance toward all women and girls in the disaster area, not just those giving birth. Previous research shows that midwives demonstrate moderate to high levels of empathy, which tend to increase with professional experience and are especially pronounced when caring for infants and younger children.[24,25] These findings are consistent with the compassionate and motherly roles described by participants in our study. In disaster contexts, such deep empathy may help midwives provide not only physical care but also a sense of emotional safety and human connection, which is vital in the face of trauma and loss.

On the other hand, midwives see themselves as instruments of hope and healing. This is consistent with the broader role of healthcare professionals in crisis contexts, wherein their involvement contributes not only to clinical care but also to the psychological stabilization and emotional resilience of affected individuals.[26,27] In particular, one study reported that women exhibit psychopathological symptoms following an earthquake, underscoring the importance of targeted psychosocial interventions to address their specific needs in the post-disaster period.[28]

In this context, midwives play a vital role by providing both clinical and emotional care, helping restore dignity and foster recovery in post-disaster settings. In another theme, midwives used metaphors

such as "hero" or "lifesaver". This aligns with international studies conducted during natural disasters and pandemics, which indicate that healthcare workers often take on highly visible and critical roles, leading both society and themselves to perceive their actions as heroic.[29,30]

In past disasters, many healthcare workers were publicly labeled as heroes, a title that brought both pride and psychological tension.[31] In our study, midwives described their work in the earthquake zone as transformative-turning ordinary professionals into extraordinary figures under pressure. While heroism can be a source of motivation, it may also create unrealistic expectations and emotional burdens, especially when midwives feel they must always succeed despite the chaos and uncertainty surrounding them.[7]

Working in post-earthquake conditions, often without adequate resources, support, or rest, places immense pressure on healthcare workers. Research on disaster response consistently reveals that healthcare providers face high stress, sleep deprivation, and moral dilemmas.[29] For midwives, who provide continuous and intimate care, this burden is compounded. Despite their resilience, many expressed feelings of helplessness when unable to meet the overwhelming needs of the community. As in a study examining the post-earthquake care experiences of midwives in our country, we also found that midwives experienced helplessness and psychological burden while providing care during the disaster.[32]

These findings underscore the importance of institutional preparedness and mental health support for frontline providers in disaster settings.[33]

Maternal mortality rates can increase significantly after earthquakes. In the earthquake-affected areas, 13,042 women gave birth in the same month, and a total of 31,315 pregnant women and 24,744 postpartum women were monitored.[34] It is well-documented that after such earthquakes, rates of miscarriage, stillbirth, preterm birth, and inadequate birth weight rise substantially. In addition to the known negative impacts of earthquakes on mental health, these effects can persist for years.[35] Therefore, it is understandable that midwives face significant challenges in the aftermath of a devastating disaster like an earthquake. The essential role of midwives in providing maternal care explains the emergence of the "difficulty" theme. Challenges may also be associated with gaps in midwifery education, particularly the lack of training in disaster preparedness. Midwives trained for routine care may find it difficult to adapt their skills to chaotic and resource-limited settings such as earthquake zones.

Metaphors related to uncertainty emphasize the unpredictable, chaotic nature of earthquake response. Midwives in the study described working in unstable environments, not knowing where or when the next tremor might occur, or whether they would have the equipment or support needed to continue care.

The literature on health care during times of crisis similarly highlights how the lack of clear protocols, shifting responsibilities, and logistical disruptions increase anxiety and decision fatigue.[29]

In such settings, midwives must rely heavily on adaptability and improvisation-skills not always emphasized in traditional training but essential in disaster response. Addressing uncertainty in education and policy may enhance midwives' readiness for future emergencies.

Providing aid during an earthquake involves navigating significant uncertainty. Due to the complex and unpredictable nature of such disasters, it is often difficult for midwives to anticipate the needs of the population, the outcomes of their interventions, and the obstacles they may encounter. This uncertainty complicates planning and service delivery, as unexpected conditions continuously arise.[15]

Moreover, midwives must recognize that their usual competencies might not be sufficient for disaster conditions. Several studies highlight the inadequacy of midwives' preparedness for emergencies. Environmental challenges, such as shortages of medication and supplies, damaged infrastructure, limited staffing, and extended working hours, also contribute to the sense of unpredictability and strain.[7,13] Since midwives are central to ensuring maternal and newborn health during disasters, efforts to strengthen their disaster preparedness, including pre-disaster planning, emergency response, and post-disaster recovery roles, are essential.[13,22]

LIMITATIONS

This study has several limitations. First, the use of single-sentence metaphor expressions limited the depth of the data, potentially constraining the richness of participants' experiences and perspectives. Second, participants may have been influenced by social desirability bias, leading them to use more positive or professionally appropriate metaphors rather than expressing negative or ambivalent views. Finally, since the study was conducted with a specific group of midwives in a particular region, the findings may not be fully transferable to other cultural or geographical contexts.

CONCLUSION

This qualitative metaphor analysis revealed that midwives employed predominantly positive metaphors to describe their professional identity and responsibilities during earthquake situations. The findings were categorized under key themes such as professional commitment, protective role, and resilience in crisis. These metaphors indicated that midwives perceive themselves as essential actors in ensuring the continuity of maternal, newborn, child, and public health services during disasters.

The theme highlighting negative experiences of "difficulty and uncertainty" underscores the complex and often insufficient preparedness of midwifery care in disaster contexts. This finding emphasizes the urgent need to develop and systematically integrate disaster midwifery training programs into midwifery education. Equipping midwives with specialized knowledge, skills, and resilience tailored to disaster settings-such as earthquakes-is crucial for enhancing maternal and neonatal outcomes in these high-risk environments. In this regard, defining and formalizing the concept of disaster midwifery, delineating its scope, and incorporating it into curricula can strengthen healthcare systems' resilience against disasters. Furthermore, practical training including field exercises, simulation scenarios, and psychosocial support interventions may improve midwives' performance and well-being during disaster response. Future research should focus on developing, implementing, and evaluating disaster midwifery interventions to optimize care delivery and outcomes in affected populations.

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