



The nurses' experiences working in the earthquake area: A qualitative research

Hatice TUNÇ^a

^a *Burdur Mehmet Akif Ersoy University, Bucak Health School, Nursing Department, Burdur, Türkiye*

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^a<https://orcid.org/0000-0003-0547-4419>

*Correspondence: Hatice TUNÇ

Burdur Mehmet Akif Ersoy University, Bucak Health School, Nursing Department, Burdur, Türkiye

e-mail: haticetunc@mehmetakif.edu.tr

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ABSTRACT

Aim: The aim of this study is to benefit from the experiences of nurses working voluntarily in the earthquake area after the devastating earthquake in Türkiye on how nurses can prepare more effectively in disasters and to contribute to the research of issues related to disaster nursing preparedness.

Method: A qualitative research method was used, and data were collected using face-to-face interview techniques with semi-structured questions. Nine nurses were interviewed and audio recordings were made during the interviews. These recordings were transcribed through Microsoft Word Premium and analyzed by the researcher, and main themes and sub-themes were created.

Result: Three themes were identified from semi-structured interviews with the participants. These themes emerged (1) nursing experiences before reaching the earthquake zone, (2) in the earthquake zone, and (3) after returning from the earthquake zone. As a result, participants were challenged by preparation for disasters, lack of coordination, and rudimentary living conditions, in the disaster area.

Conclusion: Turkish nurses had not fully prepared before the earthquake and were poorly affected physically and mentally in the disaster zone. Disaster nursing training should be provided in the nursing curriculum for disaster preparedness, coordination, and communication.

Key Words:

Disaster, Earthquake, Nursing, Qualitative Research, Türkiye

1. INTRODUCTION

Two devastating earthquakes with a magnitude of 7.7 in the center of Pazarcık in Kahramanmaraş and a magnitude of 7.6 in the center of Elbistan in Kahramanmaraş occurred in south-eastern Türkiye at 4:17 a.m. and 13:24 p.m. on February 06, 2023. Eleven provinces close to Kahramanmaraş and North of the Syria were affected in the same way. According to the Türkiye Ministry of Interior, 50.399 people lost their life and thousands of people were injured (1). The road system was destroyed, hence, there were difficulties in accessing these areas. In addition, the

water and electricity supplies were cut off, therefore interrupting communication, sanitation, and other daily life activities.

Nurses play an important role in disaster situations, and they are always at the forefront (2,3). According to The International Council of Nurses (2019); "Nurses, as the largest group of committed health personnel, often working in difficult situations with limited resources, play vital roles when disasters strike, serving as first responders, triage officers, care providers, coordinators of care and services, providers of information or education, and

counsellors. However, health systems and healthcare delivery in disaster situations are only successful when nurses have the fundamental disaster competencies or abilities to respond rapidly and effectively. The International Council of Nurses and the World Health Organization, in support of Member States and nurses, recognise the urgent need for acceleration of efforts to build capacities of nurses at all levels to safeguard populations, limit injuries and deaths, and maintain health system functioning and community well-being, in the midst of continued health threats and disasters".

Specifically, hospital nurses have a lot of roles in disaster areas. These roles include determine signs and symptoms of disasters victim, working with multidisciplinary team, provide effective communication, perform their responsibilities (4). However, research show that nursing professionals are not fully prepared for disaster situations in worldwide (3,6,7) thereby, disaster nursing should be researched and developed thoroughly (3,7,8). In disaster nursing, education, curriculum, clinical practice, strategy development, and communication are among the most important issues (9). Studies show that nurses are very poorly equipped against disasters, and it is important to understand the difference between normal care and care during disasters (3,7,8,10). Making risk assessments, developing multidisciplinary management strategies, determining short-, medium- and long-term needs of disaster victims, and providing continuous and sustainable nursing care are extremely important (5). There is limited research showing nurses' perspectives on disaster nursing. The aim of this study is to benefit from the experiences of nurses working voluntarily in the earthquake area after the devastating earthquake in Türkiye on how nurses can be prepared more effectively in disasters and to contribute to the research of issues related to disaster nursing preparedness. Policymakers and governments should work hard for future disasters and invest in this area.

2. MATERIALS AND METHODS

2.1. Research Design

The research was conducted as a phenomenological qualitative research type, and was carried out with the aim of making use of the nurses' experience working voluntarily in the earthquake zone and making a contribution to research on disaster nursing preparation. Nurses from the district public hospital who went to the earthquake zone voluntarily were included for this research. The interviews had in the hospital meeting room between 15-30 May 2023.

2.2. Data Collection

The data were collected by discussing with nurses voluntarily going to the earthquake zone. In-depth interviews were had with nine nurses who agreed to participate in the research. Nurses were reached using the snowball sampling. When the participants' answers started to be similar, the study was completed with nine nurses, considering that the data had reached saturation. Interviews lasted a minimum of 10 minutes and a maximum of 30 minutes. The interviews were conducted by a researcher who was trained in qualitative research and had previous qualitative research experience. Confidentiality has been provided, were allowed nurses freedom, refuse to participate or withdraw from participation and refuse to discuss specific questions. Interviews were conducted 2-3 months after the earthquake.

2.3. Data Collection Tools

Before starting the interview, the sociodemographic characteristics of the nurses (age, gender, marital status, education level, department they currently work in, professional experience, which department they went to during the earthquake, which hospital they worked in, previous experience of working in natural disasters, whether they have received training in disaster nursing) was examined. A survey consisting of 11 questions and a semi-structured survey consisting of 8 questions were used. Survey questions were prepared in accordance with the literature (1,2,7,8,9) and updated in the direction of an expert opinion. A nurse was interviewed to ensure the clarity of the questions, and no unclear questions were identified after the interview. This interview was

included in the research because the number of people who could participate in the research was low. Interviews were recorded with the voice recording application on the phones. During the meetings were provided a quiet environment in the hospital meeting room.

A semi-structured questions:

1. What were the physiological difficulties you experienced?
2. What were the psychological difficulties you experienced?
3. Have you ever experienced a situation where you felt incompetent professionally?
4. How was teamwork carried out? What was your experience like working with a team you did not know?
5. What are the important items you should take with you when going to the disaster area?
6. Was there a shortage of medical supplies? How was this situation managed, what did you do in this situation?
7. What were the most common health problems?
8. How did you feel after returning from the disaster area?

2.3. Data Analysis

The data of the research were analysed by inductive method. Voice recordings were transcribed through Microsoft Word Premium. Data analysis was carried out by hand coding by the researcher. The resulting written text was read many times and a code list was created. During the coding process, the researcher created thematic explanations that best described the findings. The obtained codes were grouped according to their content integrity and main themes and sub-themes were created. In the study, the principles of credibility, consistency, transferability and confirmability in qualitative research were used to ensure validity and reliability (11). Sociodemographic data were analysed using the Microsoft Excel Program which calculates the percentage distributions of these data (frequency, percentage, average, standard deviation). After the audio recordings were transcribed, they were sent to the nurses and no negative feedback was received.

2.4. Procedures

Five of the nurses who participated in the interviews were in the first group to go to the earthquake zone. The first group set off on the earthquake and reached the earthquake zone the next day. This group stayed for six days in the earthquake zone and returned, afterwards, the second group including the other four nurses set off.

3. RESULT

This section includes the results generated by quantitative and qualitative data. The socio-demographic characteristics of the nurses participating in the study are shown in Table 1.

The themes and sub-themes of the nurses' qualitative interview data are shown in Table 2.

3.1. Nursing experiences before reaching the earthquake zone

3.1.1. Preparation

The earthquake occurred at 04.17 a.m. on February 6, 2023, volunteer nursing group was set up in the Bucak State Hospital. This group was the first group to go to the earthquake zone, and since this group did not know where they would work, they made their preparations according to winter conditions and instructions from the Provincial Health Directorate. They talked about their preparations as follows:

"He (Local Health Authority) said, "Take canned goods or something like that." We took with us junk food and snacks, things that would handle us. Other than that, when I left here, I took warm clothes with me in case I would work outside, but since I was in the hospital, I didn't have much difficulty in this regard. I mean, I worked as a civilian." (P1)

"There is generally a shortage of food supplies, especially liquids were advised (Local Health Authority). Take products that have an expiration date, that is, those that will not spoil immediately. "Let it be canned food, pretzels, etc." (P2)

The nurses in the second group stated that they contacted the first group and prepared for the necessary needs there:

"It was a great advantage for us that there was a previous team. Everything for personal care, even nail clippers... For example, the first team that went did not

Table 1: Sociodemographic characteristics of the participants

Sociodemographic characteristics	n	%
Age range		
25-29	6	66.7
≥30	3	33.3
Gender		
Female	2	22.2
Male	7	77.8
Marital status		
Married	3	33.3
Single	6	66.7
Educational status		
Secondary education	2	22.2
Bachelor degree	7	77.8
Working department		
Surgical service	3	33.3
Intensive care unit	3	33.3
Home care unit	2	22.2
Wound care unit	1	11.2
Occupational experience (year)		
5-7	5	55.6
≥8	4	44.4
Working department in the disaster area		
Intensive care unit	5	55.6
Emergency service	4	44.4
Experience about disaster		
Yes	1	11.1
No	8	88.8
Education related to disaster		
Yes	4	44.4
No	5	55.6
The time spent in the disaster area (day)		
6	5	55.6
7	4	44.4

Table 2: The main themes and sub-themes

Main themes	Sub-themes
Nursing experiences before reaching the earthquake zone	Preparation
	Transport
Nursing experiences in the earthquake zone	Lack of coordination
	Physiological difficulties
	Psychological difficulties
	Communication and teamwork
	Common health problems
	Professional experience
Nursing experiences after returning from the earthquake zone	Safety
	Physical problems
	Psychological problems
	Suggestions

take any uniforms, you know, we took our uniforms, just wondering what we will work with." (P3)

"Daily needs, pad, etc. I was glad I took them anyway... One pack of wet wipes was enough for five of us. For example, the doctor took with disinfectant. We used it a lot. It was great. Also, the doctor took dry shampoo because we couldn't wash our heads. For example, that dry shampoo satisfied our needs. When the hair immediately became greasy, we squeezed it. "It was great." (P4)

Professional preparations are mentioned as follows:

"You know, there were PDFs related to trauma syndrome, crush syndromes, etc. They were sent to us. What kind of situations might you encounter? What should you do? There was a PDF tutorial saying, "Definitely don't use these" and "Don't use these". They sent them from the Local Health Authority. We have already worked on these along the way. We read it." (P2)

3.1.2. Transport

The transportation difficulties experienced by the first group to go to the earthquake zone were expressed as follows:

"To be honest, there was a problem with our transportation. From here, we went to Ankara by bus from Burdur... Because there were empty seats for fifty people on the plane. The plane waited for us for three hours. There were ones inside the plane too. There were miners from Zonguldak. You know, people who could be much more useful if they left early. They just waited for us. We then reached Ankara. We already went directly to the airport. We boarded the plane and landed in Adiyaman. This time we could not find a contact person. It was around three-thirty-four at night. If I remember correctly, we arrived at the hospital at 08.00 a.m. There is no bus to pick us up from there. So, we cannot reach the staff at the hospital. We cannot reach people at the Governorship or Local Health Authority. You know, we came, but what should we do? Where should we go? Not sure. Nothing is certain." (P2)

3.2. Nursing experiences in the earthquake zone

3.2.1. Lack of coordination

It was determined that the most important problem was coordination and that the team tried to solve this

problem within themselves. Those related to coordination are expressed by nurses as follows:

"We came to the hospital. Coordination is missing. Either there is no one to arrange that welcome you, that is, at the crisis coordination center in the hospital. There is no order, there is no such thing as coordination. It was the biggest shortcoming. We haven't seen anyone as a director. I coordinated everyone. I was a chief nurse in the emergency department in this hospital. A little bit of that, the work of 10 irregular people, this time there is no room for patients. Let's rest and rest that we will work this way. We do not know how much will come. We do not know that it will continue. we met the other team there. But the team was different. But we had no problems. Everyone's only purpose was to help people." (P6)

"The person volunteered and coordinated us. This chief said that: You will work between those hours; you will work between those hours. This of course started putting in order after the third day. Before was chaos." (P2)

"People can coordinate very quickly, and everything can be achieved if you want it. I did not know, I worked with the Ankara team. We worked with the Samsun team we never knew each other. Because we were being acted for the same purpose. Without looking after any interest, your only goal is to be beneficial to the people there. If anything, we didn't know, we asked each other. Many sacrifices were made. We said that we could not coordinate in our normal routine, but we managed in there. We put our hearts and souls." (P7)

3.2.2. Physiological difficulties

After transportation to the hospital under difficult conditions, in the hospital; An assignment was made by a responsible person according to the departments in which they were working. In this process, nurses talked about the physiological difficulties they experienced as follows:

"Physiologically, I had a fatigue. As insomnia increases, stress and nervousness rise. I was more tired, I consumed my energy on the road, where I would work efficiently for there the twelve hours I spent on that road. It was bad. I slept anywhere for five days, we found cardboard in a dustbin. I even know that we put

cardboard on the edge of the toilet and sleep in sometimes. Having nothing on you. The weather was cold. Because the hospital was cold due to broken window. I had a fleece jacket. This jacket didn't cover my leg completely either. I couldn't sleep because it was extremely cold. I woke up because you got cold from ten minutes to ten minutes. I was moving." (P5)

With the group that went to the earthquake zone second, it was seen that physiological needs such as shelter and food were met to a certain extent and different needs emerged. These needs are expressed as follows:

"Since we went in the second week, there was water. They gave us a room. Six people stayed in this room. we had no trouble eating. Because there were charities and the red crescent around the hospital, everyone had come. The hospital started making its own food after a while. We just needed hot water in the room where we stayed. Hot water, that is, at the time of shower." (P8)

"We couldn't find a heater at first. Later, as there was a heater in every room, power was cut constantly. We had trouble in that respect. Physiologically, there was no food at first. There were always the same dishes. It was boring." (P4)

Based on this inference, different needs emerged after basic physical needs such as shelter and food were met. It is seen that these needs are also aimed at improving basic needs.

3.2.3. Psychological difficulties

Besides the physical difficulties of working in the earthquake zone, there are different psychological difficulties. This situation is expressed by the nurses as follows:

"I was affected by patients having amputations and their age being too young or pediatric. And every patient who came out of the ruins wanted water all the time, so you wanted to give water, but you couldn't. It affected me. When they got out of the ruins and came to the hospital, they had no relatives and no one when those patients needed to be referred. You didn't know where you were going. His family cannot reach him either." (P1)

"Seeing amputee patients made me tired." (P5)

"For example, when I bought the first soup, I questioned

this. Do I deserve this soup right now?" (P3)

3.2.4. Communication and teamwork

One of the most important parameters in the earthquake zone is communication. It was stated by the nurses that the communication problems experienced in the daily working environment, were not experienced in the earthquake zone and that it was easier to communicate with coworkers although there were conceptual differences. All these were expressed by nurses as follows:

"You are there for the same purpose. So, there is nothing called hierarchy between doctors and nurses. So, when the goal is the same, it meets at the same point." (P7)

"... in peace. We had no problems in communication." (P5)

"On communication. The phones ran out of charge, so you didn't have a connection with your team. We went to rest, and rotation turned. You didn't have a connection with your team either." (P7)

3.2.5. Common health problems

The most common health problems in the earthquake zone are mentioned by the nurses as follows:

"Trauma-related crush. Crush syndrome was too much. Amputations, that is, what we met most... No dialysis technician. Most importantly, after saving the patient from that condition, AKF (Acute Kidney Failure) occurred..." (P7)

"So, fractures, amputation, segmental fractures, cuts. Orthopedic cases were too much." (P6)

"We tried to deal with patients who were burned and poisoned by stoves, and those living in tents. Those cases were too much." (P3)

"Some patients found their wounds unimportant. Open wounds were too much. For example, the wound was sutured, but of course infected, that is, there were infected wounds, tendon incisions..." (P3)

3.2.6. Professional experience

It has been observed that volunteer nurses have a great advantage because they have intensive care and emergency department experience. It was stated that they did not have any difficulties in emergency response and use of medical devices. In addition,

they did not have much difficulty professionally because they were used to chaotic environments. These are expressed as follows:

"I did not feel inadequate because we experienced instant chaos in the intensive care unit providing more experience advantages. We know the devices; we know the monitor. We know the patient profile. We know sudden intervention in the arrest. There was no lab. No infrastructure, nothing. We had only two devices. Blood gas devices. And we did everything over it. We took it immediately and sent it. We came looking at the results while coming on the road. So, we were going to evaluate ourselves on the road. It was very likely to be overlooked. Because there were experts inside, but we were not enough after all." (P7)

"I didn't feel inadequate because I had emergency department experience, I don't know. So, we wanted surgical intervention." (P3)

"Obviously, I'm not saying felt inadequate, but there were times when I fell into despair." (P5)

3.2.7. Safety

Some security weakness was also experienced during the period remaining in the earthquake zone. These problems are important for the safety of patients as well as for the safety of nurses. This situation is expressed by the nurses as follows:

"When I first came to the hospital I thought we couldn't work in a hospital because the hospital was pretty bad. So had ruined, walls or something had broken out." (P1)

"There were separations at the junction of the service and the outpatient clinic building. There was damage, but those columns were safe. For example, there was something. The wall was so cracked that it might have collapsed on the patient. On top of that, we experienced earthquakes there three or four times, more than 4.5 magnitude. If it collapsed, it would collapse on the patient. But it didn't collapse. For example, there were some separations on the walls.

"We could see outside the intensive care unit through the cracks." (P2)

"Flooded where I worked. When necessary, I used a squeegee. I was in the water. Slipping hazard was possible. Our safety was also important." (P7)

"So, the way we accepted the drugs might be abusable.

Yes, you might say, are these paid attention to disaster times? But we should pay attention. So, now that, our patients were taking opioid analgesic because their pain was so much. I just mentioned that I didn't take away the uniform. Now we had a pharmacy. I was going there, there were ten opioid analgesic. So, they gave it without question, of course, because it was a disaster. But that was, it was really abusable." (P5)

3.3. Nursing experiences after returning from the earthquake zone

3.3.1. Physical problems

After the nurses working voluntarily in the earthquake zone returned, they stated that they had some health problems as follows:

"I suffered from pilonidal sinus due to poor environmental conditions. It was abscessed. I had started using antibiotics. Then I had surgery." (P2)

"I had an eczema. It was itching. I mean, it almost started to bloody up. I was downhill all the way. We had trouble in terms of hygiene." (P5)

"We had many bowel problems because we ate the same things. And a bit special, since it was so cold there, we all got stuck at such a moment and urinary incontinence was too much." (P4)

3.3.2. Psychological problems

After returning from the earthquake zone, the nurses were also psychologically affected by the chaos, and expressed it as follows:

"When I was alone here, it sounded as if there would be an earthquake, usually at night. There will be an earthquake here." (P1)

"After returning, the things I felt sorry for in rutin life became very simple. I felt like I was committing an offense when I shared on social media." (P3)

"For example, I was very emotional when they said tell me what you saw. Or when I watched TV, I felt more belonged there." (P4)

3.3.3. Suggestions

For the earthquake, the recommendations of the nurses on what to do in hospitals are as follows:

"As far as I'm concerned, the hospital needs to be a hospital that is known from another region, not from the same region, and there must be staff. So we have a matter of; Let's go Trabzon, for example, is too far from

us or we should know a hospital of a district there. Let them know us too. I think it's a huge deficiency." (P3)

"Experienced people must go. Emergency, intensive care, and operating room teams." (P6)

"Our only problem is this. You came here (hospital) what's in this room? There should be a chart for this. Materials that can show what is where in certain places, there is this in this room, there is this in this room, etc. When they asked, we didn't know. We also said we were foreigners. You (one of the staff of the hospital in the earthquake zone); wear a different colour uniform, wear something that will make you remarkable, and this helps to show place to foreign people." (P9)

4. DISCUSSION AND CONCLUSION

With the findings obtained from our study, thoughts, and experiences about what happened before reaching the earthquake zone, in the earthquake zone, and after returning from the earthquake zone are discussed. In our research, it was stated that nurses who went to the earthquake zone had no previous experience in this field and most of them had not received training in disaster nursing. A study conducted in Türkiye indicated that the nurses are ready for disasters at a moderate level (12). Research conducted in Malaysia and Arabia also shows that like to Türkiye nurses are moderately prepared for disasters (13,14). It is stated that the knowledge level of nurses should be increased, and their awareness should be created with the up-to-date trainings on disasters (12). Nurses working in disaster areas rather than in hospitals stated that previous experiences do not guarantee working efficiently under disaster conditions (3). When other studies in the literature are examined, it is stated that nurses have no experience and have not received disaster-related training (3,7,15). In addition, it is widely reported that nurses lack confidence in their ability to respond to disasters and are not adequately prepared (16).

The International Council of Nurses (ICN) recommends that nurses, regardless of their experience and expertise, be equipped with basic knowledge and skills to cope with major injury cases (17). Disaster-related training for nurses and doctors

should be provided in schools as early as possible. Authorities need to make more effective plans about disaster interventions for nurses across the country, develop policies on this issue, conduct detailed research, and finance disaster training (13,15,17). In the fight against disasters, in addition to regular updating of disaster nursing through continuing nursing education, disaster courses and topics need to be incorporated into undergraduate and graduate programs. Nurses most likely to deal with disasters in areas such as perioperative care, emergency care, community care, and public health should be equipped with advanced knowledge and skills in disasters (3). Being prepared in advance for a disaster makes disaster management easier (8). It has been found that nurses who receive undergraduate and graduate education in disaster management are more prepared to deal with disaster situations (14).

In addition to the lack of disaster education, disruptions in transportation due to lack of coordination and communication are another problem. Nurses stated that it took a very long time to reach the disaster area due to lack of coordination. It was mentioned that they could not organize their personal belongings well during the preparation phase due to lack of communication, and some nurses had to leave their belongings due to the miners' equipment during transportation by plane. Low phone signals and charging problems due to power outages caused major communications disruptions. In other studies, it is also stated that disaster response management is incomplete at the institutional level after a disaster, communications are greatly disrupted both due to coordination and due to problems with phone signals (7,8,19). It has been stated that due to the slow progress of the bureaucracy, there are disruptions in the transportation of human resources to the disaster area (15). On the other hand, it is stated that they have difficulties in transportation not only due to lack of coordination and communication, but also because the roads are completely destroyed (3).

Although the response to disaster zones is complex and difficult, it is stated that coordination and

communication are indispensable for providing the necessary resources in disaster management (20). It should be remembered that nurses are also a group that can maintain order by taking leadership to ensure coordination and communication in chaotic environments (15). The chaos that occurs at the time of a disaster causes more loss of life and property. Planning and coordination should be done before the disaster, not during it. When the plans are made; information gathering, priority setting, and decision-making will be faster. With the recruitment of qualified people to the field, prior organization, needs assessments, coordination of health service teams in the form of pre-hospital, hospital, public health, social and psychological teams, a well-equipped team will be established to help earthquake victims very well (19).

The coordination and communication failures experienced make it difficult to reach the earthquake victims and may cause delays in transportation to people in need of health care. The most common health problems encountered in the earthquake zone are amputation, head trauma, hematoma, fracture, and crush syndrome. In the second week of the earthquake, different health problems were encountered. Because the earthquake occurred in the winter, it has been stated that earthquake victims use stoves due to cold weather conditions, so stove poisoning and burn cases increased. In addition, it has been stated that infected wounds are seen a lot because the earthquake victims do not care about their wounds due to the great pain experienced by the earthquake. In other studies, it has been mentioned that flu, diarrhea, constipation and infectious diseases are observed due to hygiene problems of nurses (21). In the light of all this information, it has been concluded that health problems may differ in earthquake regions according to the season in which the earthquake occurred and preparations should be made according to the season and time.

In addition to all the health problems mentioned, one of the groups most damaged by the earthquake is children. It was stated that many injured children

were brought to the hospital, that the hospital did not have sufficient equipment for child patients, and that there were many security problems because the children were left alone. After the earthquake in Taiwan, nurses drew attention to similar problems. It has been mentioned that children have no one left to care for them because their parents have died, older children take on the responsibility of looking after their siblings, and there are problems in receiving education (21). It can be said that children suffer a lot in disaster situations and a separate coordination should be developed for children's safety and health problems.

It is very important that nurses working in the disaster area are coordinated among themselves and can manage teamwork without problems. Nurses stated that they did not know anyone in the environment in which they worked, but they were very easily coordinated among themselves. It is stated that they coordinate with nurses from different provinces in a very short time, carry out teamwork very easily, and enable local nurses to go to their families by facilitating their work. It was stated that the communication problems they experienced while working in their clinics before the earthquake did not live in the earthquake zone and that the difficulties were overcome easily when they were for the sake of the only purpose. In another study, it was emphasized that team members support each other more and get closer in an environment where there are uncertainties and vital risks (3). In the research conducted in Taiwan, it is mentioned that team members are warm to each other, establish communication easily, and help each other in many matters. It has been mentioned that the trust-based relationship between nurses, doctors, and patients is easier to establish in post-earthquake conditions than in traditional healthcare conditions (21). In the Chinese earthquake, nurses stated that they could not communicate with local nurses and that the work was disrupted because they could not form a collaborative working group (3). Despite the difficulties of teamwork, nurses succeed in disaster areas thanks to their professional knowledge and

reconciliation skills (8,15). In this context, it can be said that there are vital risks, and that team spirit is stronger in voluntary work environments. Also, thanks to the communication with local nurses, it can be said that easy adaptation to the environment and disruptions in jobs are reduced. Management is very important in environments where there is chaos (15).

In this study, the participants stated that they did not have very large psychological problems after the earthquake and that this did not affect them much because they constantly faced major injuries in the hospital. It is stated that nurses working in China experience acute stress disorder and post-traumatic stress disorder and receive psychological counselling services (3). In another study, it is stated that working in a disaster environment affects the mental and physical health of nurses (8). It can be concluded that the nurses' roles after the earthquake may change depending on whether they work on the field or in the hospital. It is very important to support the earthquake and employees for mental health. For this reason, it is very important for nurses to receive the necessary training to provide mental health support in disaster situations (15).

In this study, it can be stated that nurses have faced various safety problems in the earthquake region where they serve. They stated that since the hospital they were in was damaged by the earthquake, they were struggling with the risk of walls collapsing, floods and cold. Other studies have addressed similar problems experienced by nurses. These; The risk of hypoxia in the earthquake zone with high altitude, struggle with heat and cold, wild animal attacks, risk of contracting infectious diseases and having to struggle with floods (15). In another study, heat strokes, aftershocks, landslides and fighting snakes were mentioned (8). There are significant risks associated with working in earthquake zones. Knowing the conditions of the region for nurses who will work in these regions will make it easier for them to prepare for the risks they may encounter.

In conclusion, this research consists of three main themes and the sub-themes of these themes. What happened before reaching the earthquake zone is

the first theme, and this part includes personal belongings preparation and professional preparations for cases that may be encountered in the earthquake zone. In addition, the difficulties experienced during transportation to the earthquake zone were described. The second theme includes the events in the earthquake zone. In the sub-themes of this theme, coordination problems, physiological and psychological difficulties experienced by nurses, communication problems and experiences of working with different teams, health problems they face and how important their professional experiences are there were mentioned. The last theme includes what happened after the earthquake zone. The sub-themes of this theme also include the physiological and psychological health problems experienced by nurses. In addition, nurses have made suggestions by drawing inferences from their experiences in the event of a disaster that may occur in the future. As a result, we can say that nurses are not prepared for disasters, lack of coordination is too much, and they are working under very difficult conditions in the disaster zone. It is proposed to give more space to the subject of disaster nursing in the nursing curriculum against future disasters, to create teams prepared for possible disaster situations, to send nurses with more experience in areas such as surgical service, operating room, emergency department to the disaster area. In addition, more research should be done on disaster nursing.

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