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ÖZGÜN ARAŞTIRMA / ORIGINAL ARTICLE

Disaster Experiences of Elderly Individuals: The Case of Türkiye/Kahramanmaraş Earthquake

Yaşlı Bireylerin Afet Deneyimleri: Türkiye/Kahramanmaraş Depremi Örneği

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ETHICAL STATEMENT: Permits were collected from the Artvin Çoruh University Ethics Committee (Permit No. E-18457941-050.99-83603) to conduct this study. All aspects of this research were conducted in accordance with the Artvin Çoruh University Social Scientific Research Ethics Committee Codes of Ethics.

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Abstract

Aim: Disasters occur very frequently in Türkiye. As in other parts of the world, disasters affect some groups more than others in Türkiye. This study aims to reveal the experiences of elderly individuals who experienced the Kahramanmaraş earthquake in the disaster area and tent city.

Method: The study was conducted using phenomenological design, which is one of the qualitative research methods. In the study, face-to-face interviews were conducted with twelve elderly individuals with disaster experience, and the transcriptions were coded by experts.

Results: As a result of the code analysis, three themes were created by the authors. These themes are challenges and needs, lessons learned in disasters, and seeking support.

Conclusion: This study revealed that elderly individuals face more difficulties and are more affected by disasters than others. Therefore, it emphasizes that elderly individuals should be included in integrated disaster management processes to increase their resistance to disasters.

Keywords

Disaster Management, Resilience, Kahramanmaraş Earthquake, Elderly Individuals, Türkiye.

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Öz

Amaç: Türkiye afetlerin sık yaşandığı ülkelerdendir. Afetler dünyanın farklı bölgelerindeki gibi Türkiye'de de bazı grupları daha çok etkilemektedir. Bu çalışma, Kahramanmaraş depremini yaşayan yaşlı bireylerin afet yaşadıkları alan ve çadırkentteki deneyimlerini ortaya koymayı amaçlamaktadır.

Yöntem: Araştırma nitel araştırma yöntemlerinden biri olan fenomonolojik desen kullanılarak yapılmıştır. Araştırmada afet deneyimi olan on iki (12) yaşlı bireyle yüz yüze görüşme yapılmış ve transkripsiyonlar uzmanlar tarafından kodlanmıştır. Veriler MAXQDA 2022 yazılımına aktarılarak araştırmacılar tarafından içerik analizi yöntemi ile analiz edilmiş, tema ve alt temalar oluşturulmuştur.

Bulgular: Yapılan kod analizleri sonucunda yazarlar tarafından üç tema oluşturulmuştur. Bu temalar; zorluklar ve ihtiyaçlar, afetlerde öğrenilmiş dersler ve destek arayışıdır.

Sonuç: Bu çalışma yaşlı bireylerin afetlerden diğer bireylere oranla daha fazla zorluklarla karşılaştığı ve etkilendiğini ortaya koymuştur. Dolayısıyla yaşlı bireylerin afetlere karşı direncinin arttırılması için bütünleşik afet yönetim süreçlerine dahil edilmesi gerektiğini vurgulamaktadır.

Anahtar Kelimeler

Afet Yönetimi, Dirençlilik, Kahramanmaraş Depremi, Yaşlı Birey, Türkiye.

Introduction

Disasters can be defined as the results of natural, technological and human-induced events that can cause physical, economic and social losses to the whole or a certain part of society and exceed the coping capacity of the society (AFAD, 2014). Disaster management can be defined as "an interdisciplinary study with public administration at its centre, covering the process from 'planning to control' in the management related to the identification of risky areas and subjects; control of natural, technological, social, human, political conditions; ensuring the development of rational plans, policies and methods; including the training of decision makers and practitioners, guiding them by considering every detail, raising awareness and adopting them as a culture" (AFAD, 2014). In the modern context, disaster management involves the execution of activities in planning, mitigation, response and reconstruction processes in pre-disaster risk management and post-disaster crisis management processes in a continuous cycle (Karaman, 2016). In integrated disaster management processes, societies that engage in activities encompassing all segments of society enhance their resilience against disasters. In the context of disasters, it is imperative to be prepared for legislative arrangements, planning, interventions and emergency response teams that are specialised in this domain, as well as individuals who provide care for the elderly (Demiröz Yıldırım, 2023b).

In disaster planning, it is imperative to establish and/or cultivate suitable networks to identify resources within the community. Networks that are particularly beneficial for the elderly in times of crisis encompass social support systems and the identification of groups that can address their specific needs. These preparations are of paramount importance prior to a disaster. In order to prepare elderly individuals for a disaster, evacuation and temporary shelters should be planned according to the type of disaster that may be encountered at the time of the disaster and the ways of access to these should be determined with alternatives.Elderly individuals should be aware of the social aids in the community where they live. In order to facilitate disaster response in the event of a disaster, medicines, medical supplies, mobility tools, special food items, etc. that the elderly will need should be listed. Furthermore, institutions are advised to verify the accuracy of the addresses and medical information of elderly individuals collected at designated centres, ensuring that any discrepancies are addressed promptly. This will facilitate assistance and emergency evacuation in the event of a disaster (Demiröz Yıldırım, 2023b).

The two major earthquakes in Türkiye on February 6, 2023, have been dubbed the "disaster of the century" and have affected approximately thirteen and a half million people. The earthquake killed 50,748 people and injured 115,353 people. In addition, according to the state's official records, it was announced that 37,984 buildings were destroyed (AFAD, 2023). Due to the earthquake, people living in the region and their relatives living in different regions have been seriously affected in many ways. Although how people are affected by an earthquake that causes a disaster, how much they are affected, and how they react to

these effects varies, it is known that one of the vulnerable groups that will be most affected in disasters is the elderly.

In this context, the level of impact on an individual may vary according to their health, age and mobility. It is therefore important to consider the differences between a healthy, fast-moving young individual and an elderly individual with various diseases and limited mobility due to biological and physiological reasons. In situations such as escaping from potential disaster risks (e.g. fire evacuation), the elderly may be at greater risk of harm for a number of reasons.

Earthquakes can further intensify the effects of multiple losses (family, living space, independence, health, economy, etc.), which are especially common for the elderly (Banks, 2013). In addition, the elderly are more likely to be affected by disasters due to multiple health problems, movement disorders, insufficient social and financial resources, and age-related decline in some functions (Blaikie et al., 2014; Çakmak, 2018; Henderson et al., 2010; Magrath, 2007). This affects their responses to the challenges they face after an earthquake (Ahmadi et al., 2018).

The elderly may face physical, cognitive, sensory, social, and economic difficulties and may have problems in adapting and surviving disasters. All these challenges can prevent the elderly from adapting to disasters (Hoffman, 2009). Therefore, it is essential to identify, monitor, and support elderly individuals. Special arrangements and studies should be made to meet the basic needs of the elderly after disasters such as earthquakes (Cherniack, 2008). Without the necessary arrangements and studies, the elderly often become invisible in disasters and are marginalized in society. The basic and individual needs of these marginalized elderly cannot be adequately met (Twigg, 2015).

It is critical to register and regularly monitor elderly individuals after an earthquake. In this monitoring process, the individual characteristics, living conditions (container or tent, with family or alone), social problems (family, social assistance, or neighborhood support), health status, physical functions (walking support, walking distance, transportation of aid products, etc.) and basic needs (temporary shelter, clothing, blankets, nutrition, hygiene, water supply, heating, etc.) of the elderly should be evaluated (Uçku, 2015).

The level of vulnerability of the elderly to earthquakes is closely related to individual factors. Among these individual factors, factors such as functional disabilities, health status, and access to health services stand out. Functional deficiencies such as decreased movement and muscle strength, more sensitivity to air temperature, obstacle to access to aid services, distance to material distribution points, and inability to carry heavy loads in the elderly may cause them to be more affected by earthquakes (Cherniack, 2008; Twigg, 2015; Uçku, 2015).

In times of disaster, nutrition (Güden & Borlu, 2023), health, sanitation, hygiene, and shelter should be prioritized among the basic human needs of the elderly. In this regard, elderly individuals should be provided with access to nutrition appropriate to their age and health status, and their access to food distribution points should be regularly supported (Uçku, 2015).

Access to safe water sources should be ensured for the elderly in temporary shelter areas, and basic hygiene services such as bathrooms and toilets should be arranged by taking into account the elderly. In addition, the suitability of post-disaster temporary shelters to the needs of the elderly should be considered, with a particular focus on the risks and challenges to which older persons are more vulnerable (Lines et al., 2022; Naylor et al., 2018; Zhang et al., 2023). Little is known about how the elderly manage and respond to challenges after disasters (Ahmadi et al., 2018). Known methods should be supported to increase coping capacity.

In formulating an effective disaster management policy and understanding the effects of disasters on vulnerable groups, it is critical to understand what the elderly need in the first place. In this regard, this qualitative study planned to determine the life experiences, needs, problems encountered in this process, and coping methods of the elderly in the first days after the earthquake and in the temporary shelter areas (tent city) where they settled afterward. The data collected within the scope of the study were analyzed within the framework of the main question *"How can the earthquake experiences of elderly individuals and their existing problems, expectations, perceptions, and attitudes towards the disaster experienced be explained?".*

Method

In the study, interpretive phenomenological analysis, which is one of the qualitative research designs, was used to explore the disaster experiences of elderly individuals in depth. A purposive sampling method

was used. In this regard, individuals must meet some inclusion criteria to be included in the study. Inclusion criteria were defined as being over 65 years of age, having experienced the earthquake, and having experience in a tent city after the disaster. Kahramanmaraş province was chosen as the research area because it is a region with a lot of destruction. The study data were collected by conducting in-depth interviews with elderly individuals who experienced the Kahramanmaraş earthquakes. A sociodemographic information form and a semi-structured interview form which was created by the researchers and submitted to the expert opinions of five (5) academicians who are experts in this field, were employed in the data collection process. The data collected within the scope of the study were analyzed within the framework of the main question *"How can the earthquake experiences of elderly individuals and their existing problems, expectations, perceptions, and attitudes towards the disaster experienced be explained?".*

It is known that there may be differences in the number of samples in the phenomenological design used in the study. In qualitative studies, the number of samples can vary from three (3) to fifteen (15) people (Dukes, 1984; Johnson & Christensen, 2016). In determining the sample size in qualitative research, Creswell states that reaching the size that will provide comprehensive and detailed information about the targeted phenomenon plays a significant role (Creswell, 2013). In this study, the number of samples was determined according to the data saturation principle, which is Cresweel's approach and valid in qualitative research.

During the study, the data were analyzed while the interviews were continuing. The study was terminated when data saturation was reached. In this regard, interviews were conducted with 12 elderly individuals and the study reached saturation. A semi-structured interview form prepared by the researchers was during the interviews. Permission to use the semi-structured interview form and sociodemographic information form in the study and to initiate the study was obtained from the Artvin Çoruh University Ethics Committee (permit No. E-18457941-050.99-83603). The data were collected face-to-face from individuals over the age of 65 living in tent cities in the disaster area.

Within the scope of the study, the data collection process started on 06.03.2023 and ended on 25.03.2023. The individuals participating in the study were informed by reading the informed consent form and recording consent was obtained for the voice recording to be kept preventing any data loss.

The data were transcribed using Microsoft Word software. To minimize data loss and errors, the audio recordings were listened to several times, and the necessary process for analysis was initiated after the accuracy of the transcription was determined. The data were transferred to the MAXQDA 2022 software and analyzed by the researchers with the content analysis method and themes and sub-themes were created.

The MAXQDA 2022 software was used in the analysis of qualitative data, the organization of analyses, the creation of draft codes, and the planning of draft code schemes for our research. The code-theory model used in the research findings focuses on a single code and shows the sub-codes of that code. The reporting of the study was carried out based on the "Standards for Reporting Qualitative Research (SRQR) created by O'Brain et al., (O'Brien et al., 2014) and the "Consolidated Criteria for Reporting Qualitative Research" (COREQ) created by Tong et al., (Tong et al., 2007).

The validity of the study was carried out in the form of credibility, transferability, consistency, and confirmability and was reported in this regard (Creswell, 2013).

After the study findings were read by the authors and the coding was done, common themes were determined. The themes and findings obtained as a result of the analysis were examined by three researchers who are experts in qualitative research and necessary corrections were made within their recommendations. After each theme was reviewed by the authors, the themes of the study were revealed. In this regard, three themes were created by the authors (Fig. 1; Table 3).

Findings

Twelve (12) individuals between the ages of 65-83 were interviewed and their gender, age, education level, marital status, number of children, damage, loss, and special conditions, income status, and whether they used any illness, medication, operation, or health-related equipment. In particular, it was tried to determine how age and health-related problems affected their living experiences, needs, and difficulties on the first day after the earthquake and in the tent city area where they settled afterward. In direct quotations from the statements of the participants, the names of the participants are coded as P1, P2, etc., according to the order of the interview (Table 1; Table 2).

Table 1: Description of the participants and their disease status

Table 1. Description of the participants and their disease status	Gender	Age	Education	Material Status	Child	Income	Disease	Medicine and Devices or Tools Used	Medical Operation Status
P1	Female	65	Literate	Married	2	Income < Expenses	Diabetes, blood pressure, cholesterol	On medication, on Platinum	Spinal cord surgery
P2	Female	65	Illiterate	Single	3	Income = Expenses	Cardiovascular diseases present, cholesterol	On medication, on Stand	Underwent angiography operation
P3	Female	65	Illiterate	Single	4	Income < Expenses	Single kidney, heart failure, diabetes	On medication	Had undergone a heart operation
P4	Female	68	Illiterate	Married	4	Income < Expenses	Diabetes, goiter	On medication	no medical operation
P5	Male	68	Dropout from secondary school	Married	4	Income < Expenses	Chronic cough	Although it is not regular, the use of medication is present	no medical operation
P6	Female	65	Illiterate	Single	5	Income < Expenses	Blood pressure and allergies	On medication	no medical operation
P7	Female	75	Illiterate	Married	1	Income > Expenses	Cirrhosis, jaundice, fatty liver, and lung problems	On medication	no medical operation
P8	Female	68	Primary school	Married	3	Income < Expenses	Diabetes, blood pressure, inflammatory rheumatism, lives with one kidney	On medication	no medical operation
P9	Female	69	Literate	Married	7	Income < Expenses	She has heart disease, lung disease, urinary incontinence, and lives with one kidney	She has been taking medication but has stopped using it in the tent city	no medical operation
P10	Female	73	Literate	Single	6	Income = Expenses	Blood pressure patient	On medication	3 angiography and a brain surgery
P11	Male	83	Literate	Married	1	Income > Expenses	Heart, blood pressure, diabetes	I'm on a single pill, it's not regular	Angiography
P12	Male	67	Literate	Single	7	Income < Expenses	Diabetes	On medication	no medical operation

Table 2: Information on the individual disaster loss

ID	Loss/Damage/Special Circumstances	ID	Loss/Damage/Special Circumstances
P1	Her house collapsed, her child was pulled from the rubble	P7	Her house is badly damaged, her son's house is flattened
P2	She lost 1 child in the earthquake and has a child in need of care	P8	No loss
P3	Her house was badly damaged, she lost her daughter-in-law in the earthquake	P9	Both of her houses were badly damaged
P4	Her house is damaged, but there is a report that it is habitable	P10	No loss
P5	His house is damaged, but there is a report that it is habitable	P11	His house is badly damaged, his son's house is collapsed
P6	Her house was badly damaged	P12	No loss

The experience of elderly people regarding the earthquake was examined based on three (3) main themes. These themes are challenges and needs, seeking support and lessons learned in the disaster in the Kahramanmaraş Earthquake (Fig. 1).

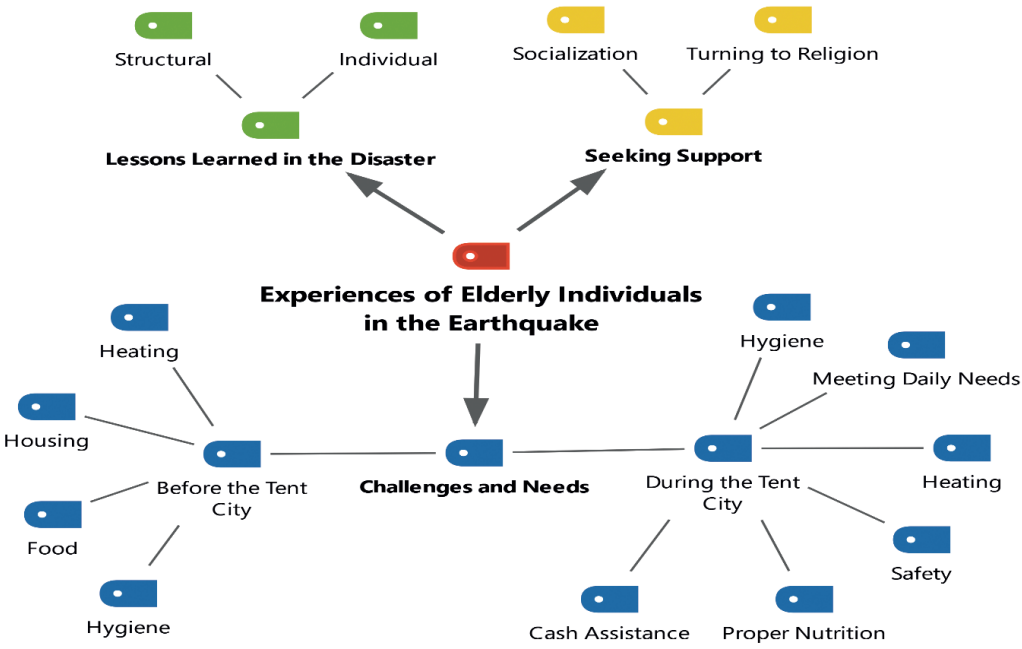

Figure 1: The Disasters Experienced by the Participants Code-Theory Model.

Note: The line thicknesses in the figure does not shows the frequency density.

Table 3: Experiences of Elderly Individuals in the Kahramanmaraş Earthquake		
Theme	**Sub-Themes**	**Codes**
Challenges and Needs	1- Before the Tent City	Heating Housing Food Hygiene
	2- During Tent City Life	2.1. Hygiene 2.2. Heating 2.3. Cash Assistance 2.4. Proper Nutrition 2.5. Safety 2.6. Meeting Daily Needs
Seeking Support	1- Socialization 2- Turning to Religion	
Lessons Learned in the Disaster	1- Structural 2- Individual	

Challenges and Needs

In the interviews conducted with 12 individuals over the age of 65 in the tent city area, the main questions were asked to determine the needs of the participants in the first days of the earthquake, especially in the tent city area, and how they met these needs, and related sub-questions as a continuation of the main question. In this regard, the theme of challenges and needs was created, and this theme was divided into sub-themes as 'before the tent city' and 'during the tent city life'.

Before the Tent City

To determine the needs of the participants until they came to the tent city, the question "What did you need the most and what problems did you experience in the first days of the earthquake and until you came to the tent city?" was asked to individuals over the age of 65 who had experienced the earthquake and resided in the tent city, and the sub-theme "Challenges and Needs Before the Tent City" was formed in line with the answers received. In this regard, sub-themes of heating, housing, food, and hygiene were created in line with the answers given by the disaster victims included in the study. The participants convey the situation regarding the challenges and needs before the tent city as follows:

"*I starved to death after the earthquake. I left the house in pajamas during the earthquake. No shoes, no slippers. It was raining and it was very cold. I went out with nothing on. I left with that shoe, and I still wear that shoe. What would I do without it? I told them to give me a pair of shoes to wear. They said no." P5*

"(stating that they warned other members of the family about going out) ...we went out in slippers and pajamas when it was raining and snowing... How many nights I could hardly last with this (a thin robe) on. I put on a combed shirt and went out shouting" P10

With this statement, P10 states that she was unprepared on the first day due to trauma and that she was caught in the earthquake unprepared in the winter season with the clothes she was wearing and that this process was difficult for her.

P1, on the other hand, used the following statements regarding the need to warm up for the first two days of the earthquake:

"We stayed in the schoolyard for two days. We got very cold and lit a fire in the car. It was raining at the time." P1

P4, on the other hand, used the following statements about her experience:

Talking about the early days of the earthquake (the first 1-2 days), she said, *"I needed water very much. My mouth is dry because I have diabetes... We spent our day with a bowl of soup. We barely found it, and I couldn't find a place to perform ablution for two days." P4*

These statements indicate that the participant had difficulty accessing water and food on the first day, and that she had difficulties meeting her hygiene needs. In addition, the participant stated that she had problems with clothing until she came to the tent city (within 7-8 days) and made the following statement:

"We didn't even have underwear. Some girls came, they were teachers, I told them. The tent wasn't set up either, they had set it up and left it. I can't tell you how happy I was...I couldn't find a blouse to wear. I stayed in this blouse for ten days and couldn't go home." P4

Most of the participants stated that they took shelter outside, in their vehicles, or the vehicles of their relatives on the first day of the earthquake. P8, who spent the first day after the earthquake outside in the rain and had problems with clothing, heating, and shelter, responded to the question about how they spent their first day with the following statements:

"We waited outside in the rain; we had no socks on our feet, only slippers." P8

P6 stated that they spent the first day of the earthquake with limited food provided by family members. P6 describes her experiences related to shelter on the first day of the disaster as follows:

"... (in addition to the earthquake and what they experienced during it) we could not enter our house and we stayed in cars for two days. As for food, the children brought biscuits. They found a little bread, and we divided it between three or four people." P6

The participants stated that from the first moment of the disaster, they needed hygiene, toilet, clean clothes, underwear, and clean water. Participants convey the need for hygiene as follows:

"What did I feel the lack of? On the first day, of course, we needed a lot of laundry. We had toilet problems.... Nothing like this has been seen yet. I stayed here for ten days in the same outfit. I mean, I went to my daughter in that filth, I roll on the floor, I shout. I came here in that filth." P2

"We couldn't wash our faces, my child. There was no water, we couldn't perform ablution, we couldn't pray. Then they all came, they arrived... It didn't even take ten days. After three or four days, everything came." P6

During Tent City Life

The Tent City sub-theme of the Challenges and Needs theme was created to identify the elements that elderly individuals need in tent cities. In this regard, in addition to the question "What have you needed the most in the tent city so far?", sub-questions were asked to elaborate, and this sub-theme was formed in line with the answers received. According to the answers given by the participants, the needs and difficulties in the tent city area were determined as hygiene, heating, cash assistance, proper nutrition, safety, and meeting daily needs.

Hygiene

P3, who could not meet her bathroom needs in the tent city area and entered her heavily damaged houses to meet her bathroom needs, stated the following about hygiene.

Everything is needed in the tent city. Mostly tissues and wet wipes... We go home to take a bath and then run back. P3

It was stated by the participants that the time given for bathing was not sufficient and that there were difficulties in meeting the bathroom needs during this period.

They give fifteen minutes for bathing. It takes a long time to get dressed... I said to my daughter, when will I undress and when will I get dressed? Okay, you're talking nicely, but there's undressing for the bath and dressing back. It's half-assed. P1

There's no time limit now. I go to the bathroom, and they don't say anything. There's no problem. They said that about other people. That was the situation before, but now there is nothing like that. In the early days, they told us to get out quickly. P5

Although limiting the bathing time due to insufficient resources and high need is usual for the first moments of the disaster, it is considered that the time limitation for individuals over 65 years of age and with limited mobility may put these individuals at a disadvantage. It is considered that this application should be stretched for the elderly, who are individuals who may have limited mobility.

Heating

The need for seasonally appropriate clothing emerged since the disaster occurred in winter and at 04:17. Participants stated that clothing was inadequate and not distributed fairly, that they needed appropriate clothing, and that they had difficulties in obtaining it. P1 made the following statements about the lack of access to clothing in the tent city and that aid for clothing was not distributed fairly.

My daughter, trucks full of clothes and food came here. The men who brought them lined them up and didn't allow us to choose. Your clothes are one thing; my clothes are another, right? I told an official that I needed shoes. All the people looted and took them, but I couldn't. They gave everything away. As for us, a pair of panties, a tank top, a pair of socks. P1

P4, on the other hand, stated that she stayed in the same clothes for a long time during this period and felt dirty, which caused her difficulties while praying.

I couldn't find a blouse for myself. I stayed in the same blouse for ten days; I couldn't go home... I had a hard time with underwear. We were praying, that's why I had a hard time. I got dirty, but I couldn't go home. P4

P8, who had to stay in the same clothes for a long time, stated the following about the difficulty of finding clothes and the lack of adequate heating needs in the tent city due to the conditions.

We came here twenty days after the earthquake, but we didn't benefit from anything. I'm telling the truth. I said I wanted to get a jacket. They took a note but didn't give it to me. I didn't have socks on my feet, I asked for socks. The attendant said I didn't have socks either. I was very offended that the attendant said that. If I had the means, I wouldn't have asked for them anyway. I was wearing the same jacket for a month. I just got a new jacket, which is not warm anyway. My daughter-in-law lined up for me and got it... I brought my clothes and bedding from home. We came here and saw that everyone had big electric heaters. We didn't die from the earthquake, but we will die from the cold. Children are shivering and crying because of the cold. My granddaughter is two and a half years old. P8

P2 stated that there were hygiene problems in the tent city at the first stage, especially in terms of toilets and water, but she was able to tolerate this.

There used to be a lot of misery, now that there is no misery, they see the toilet as a problem. My daughters are like that. Grandchildren left their mothers because of the toilet problem. This situation is difficult for them because they have never seen such a thing before. It was easy for us. Actually, it was hard for us too, you go at night, and there are men there, but we managed. The toilets had no water, they were dirty before... But now they are very nice and well-maintained. They wash our toilets too. It's clean now, so there are no problems, but it can happen sometimes. P2

Cash assistance

Only one of the participants stated that he needed cash in the tent city. He thinks that if there is money, he will not need anyone. The participant expresses this opinion as follows:

The important thing is the money, my child. Money is what matters... If you have money in your pocket, you don't need anyone. If there is money, you go and buy what you need. P1

Proper nutrition

Elderly individuals may have special nutritional needs due to chronic diseases. Individuals over the age of 65 who have a sensitive constitution due to their diseases and need special nutrition have stated that these needs are met by their relatives. Participants explained the situation regarding the provision of standard meals in the tent city area without considering diets suitable for people's diseases as follows:

...The food is standard. It's all salty. Salt is forbidden for me. The food is always salty. P3 Our government takes care of us and gives us lunch, but that food is not good for me. For example, beans, and chickpeas, don't help my jaundice, my cirrhosis, or my lungs. I got very sick. We have tarhana in Maraş. I make it into soup; I put turnips in it for example. Yesterday I brought it again and put it on the stove, I ate a bowl. I have breakfast in the morning... I can't eat the food here; I ate it and I got sick. They barely got me to the emergency room; the doctors told me not to eat it. P7

We're getting our food and stuff now. Dairy products, cheese, and meat are forbidden for me because I am a bit unwell. Salty foods are also forbidden for me because I have only one kidney. My husband buys me oranges and I eat them with bread... I cannot eat the food here, it is salty. Lentils, chickpeas, and beans are forbidden for me because I have an intestinal disorder. P8

Safety

Security problems may arise after a disaster. In our study, the participants stated that they were uneasy about their safety in the tent city area. P11 stated that she did not need much in general in response to the question about what she needed the most in the tent city area, but she stated the distance to the toilet and the possibility that her relatives might be harmed in terms of meeting the toilet needs at night.

We're having a lot of trouble with the restroom. It's not just me, everyone has problems... My tent, for example, is over there. You have to go very far to the toilet both day and night. I don't know how my daughter-in-law can take her child to the toilet at night. The other day my daughter-in-law told me that she came across two men on the way to the toilet, they loaded the tent cushions into a taxi, and the soldiers stopped the vehicle and took the cushions back. 80% of these men are foreign nationals and they should leave. P11

The statements of the participants that they were uneasy in the tent city area due to the possibility of looting and harassment indicate that security in these areas should be kept at the highest possible level.

P2, who felt uneasy about going to the toilet at night, expressed her desire to go to her village and the reason for this desire with the following statements:

I want them to give me a tent and I want to go to the village. I can feel safe in the village. Everyone there is our relative, we know each other... (giving information about her son not being with her) I mean, people are afraid of harassment. I heard something in the evening. Someone went behind the girls and harassed them. The girls were going to throw garbage. They said the man was overweight and ran away. So that's what I'm afraid of. Otherwise, I'm not afraid of anything else. P2

This situation indicates that the participant does not feel safe in the tent city area and wants to go to the village where their relatives are located, where they can feel safer.

Meeting daily needs

Elderly individuals may experience mobility limitations due to their age and existing diseases. Mobility limitations may prevent them from performing daily tasks that other individuals perform easily. Unlike individuals who do not have mobility limitations, they may encounter problems in accessibility. Due to their mobility limitations, elderly people reported difficulties related to the limitation of bathing time and space, which was among the findings of the study. The fact that individuals with mobility problems have to get support from their relatives, especially to meet their bathroom needs and that the mobile bathrooms in tent cities are not suitable for people with mobility problems causes these people to experience difficulties. Participants described this situation as follows:

There are mobile baths, they come occasionally, but I can't go alone. My son takes me. He washes me. I can't do it alone. Last week, I don't remember if it was Thursday or Tuesday, my son took me to the bathroom again. There are tents on the other side. They put the bathrooms there in rows. I mean, eight or ten bathrooms, but one person can hardly turn around in them. It's very small. It's super small. The shower head keeps coming off. No one maintains it, no one fixes it... I started to get dressed, I had barely put on the undershirt and I fell into my son's lap. I didn't remember. I fainted. P11

P11 stated that he was adversely affected and fainted due to the difficulties he experienced. P10, on the other hand, stated that she had difficulties in all aspects due to old age.

Well, my child, I'm old. Everything is difficult for me. Eating, bathing, everything... P10

Seeking Support

After a disaster, individuals may need support to return to normal life. Within the scope of the interviews, it was determined that the participants turned to religion or tried to establish sociality in

the tent city to overcome the post-disaster process. P5 stated that he often has to with his friends in the tent city area and made the following statements about the subject.

(the participant states that he meets his old friends in the tent city area and talks to them frequently) *We're talking the same. As we are talking now (indicating that it is about the disaster) we are talking about the earthquake and things like that. How did you do it, how did you get out of the rubble? We talk about these things... P5*

The same participant stated that he thought that the situation related to the disaster he experienced was from God.

Everyone has a pain. Now it's something from God, it's not like we fought the enemy... P5

This expression can be defined as an attempt to get rid of the burden of a natural phenomenon such as an earthquake by attributing it to a divine power. The participant sees the earthquake as an external locus of control. In addition, P12's answer to the question of what he plans to do regarding the earthquake in the future shows that P12 has a similar opinion to P5.

I can't do anything; it comes from God. How do I prepare for it? I mean, I can't do any preparation. P12

These answers given by the participants can be defined as one of the methods of coping by attributing the responsibility to divine power (external locus of control) in extraordinary situations such as disasters, where the human factor has a great effect.

P8 describes her experiences during the earthquake and his refuge in God as follows:

So God forbid. And help the one who does. I shouted a lot, I called out for Allah. I pulled my husband too. My husband already had his aortic artery replaced. He has a heart condition. My husband was sitting in the hallway like this, not making a sound. He was scared. We survived the first one like this. We tried to get up for the second one. At that moment, carpets started to fall on us in the room I was lying on. I was shouting. I just say Allah, nothing else comes out of my mouth. P8

In these statements, the participant not only describes her experiences during the disaster but also shows that she took refuge in a divine power. With this statement, the participant states that she was helpless during the trauma she experienced and that the only word that came out of her mouth was "Allah", and that she took refuge in this divine power and thus tried to cope with the earthquake in this way.

Lessons Learned in Disasters

Participants were asked what they planned to do about the earthquake in the next period and the theme of "lessons learned in disasters" was formed in line with the answers given. While the participants mainly stated that they would make individual preparations, only one of the participants (P11) stated that they would make structural preparations.

P6 stated that they were unprepared for the earthquake and that she would prepare an earthquake bag for the next process.

We never thought of it. We wouldn't expect such a thing. The children were preparing bags saying that there was going to be an earthquake, they were putting food and stuff in them. We were laughing at them, wondering what they were doing. The children were smarter than us. I would prepare it now too. P6

In addition, P8 stated that their relatives had made individual preparations before and that they wanted to be prepared before the earthquake, but they were passive in this regard.

Yes, I would... I would fold my jacket and put it on the table... My daughter-in-law, for example, had prepared a bag, but it stayed in their store. First, they put it in their car, but when their economic situation got worse, they sold the car. My son left the earthquake bag in the car at the store. I told my husband that we should be prepared before the earthquake, but we were a bit passive. P8

The participants convey the situation related to earthquake preparedness as follows:

You will put your jacket, scarf, and shoes on the escape route. When I escaped, I was able to escape with this jacket, this scarf, this blanket, you will put it on the escape route. P9

I'll pack a suitcase and put it at the exit door. I went out in slippers, my daughter brought shoes and dresses. P10

Unlike the other participants, P11 mentioned that he would make a structural preparation. P11 describes this situation as follows.

How will you prepare? Again, continuing the old way. You will put the same situation in place. Of course, I make the house stronger. P11

Discussion

Within the scope of the findings of this study on the disaster experiences of elderly individuals, evaluations were made within the scope of the three different themes of "Challenges and Needs", "Seeking Support", and "Lessons Learned in Disasters" and within the scope of the literature studies on the subject. In this regard, the theme of "Challenges and Needs" will be discussed first, followed by "Seeking Support" and "Lessons Learned in Disasters", respectively.

Challenges and Needs

Elderly individuals constitute a significant and growing proportion of the world population. In emergencies, however, these individuals often remain invisible and marginalized. Charities (NGO) may not be sufficiently aware of the needs of the elderly, or may treat them as helpless, passive recipients of welfare rather than active members of society. The needs of elderly individuals may not be taken into account in disaster planning or response, and they may be less likely to receive warnings and assistance with evacuation. Elderly individuals may have more difficulty going to distribution centers, queuing for relief materials, and carrying these materials compared to other individuals. Emergency stocks may often lack the tools and equipment that the elderly use to help them move and walk, medicines for chronic conditions, and other supplies they may need (Twigg, 2015). The finding from our study that situations such as waiting in line for meals, not being able to access food suitable for chronic illness, and not being able to access clothes in line with needs make daily life more difficult for elderly individuals supports similar studies in the literature.

Elderly individuals may have difficulty in meeting their daily needs due to their mobility limitations. In disaster situations, evacuation processes may be prolonged due to mobility restrictions, which may cause them to become more fragile (Demiröz Yıldırım, 2023a). Ensuring safe plans for building exits is especially significant for elderly individuals who are more vulnerable to risks and obstacles. In today's high-density cities, people often live in buildings with complex indoor environments, and safety risks are present not only at home but also on the way out. Previous studies have rarely taken into account the different levels of emergency in the home exit process for older elderly. However, for the elderly, this study is vital. As a result of the findings we obtained from the interviews, it was determined that individuals suffered injuries during the earthquake and evacuation from the building and had difficulty in leaving the building alone. This is because buildings and home life are not designed to be suitable for the elderly (Zhang et al., 2023). Designing living spaces for elderly individuals will contribute to minimizing accidents or the need for assistance during evacuation.

Nutrition of elderly individuals in post-disaster regions should be planned by taking into account their physical dependency (Güden & Borlu, 2023). In addition, a nutrition plan should be applied taking into account chronic diseases. In particular, nutrition should be provided to prevent the exacerbation of chronic diseases such as diabetes, hypertension, and heart failure. For example, foods containing magnesium, potassium, and calcium should be included in the meals of elderly disaster victims diagnosed with hypertension, and elderly individuals with chronic diabetes should have regular sugar measurements and be given foods with low glycemic index in their meals, for example, bulgur pilaf instead of rice pilaf, whole meal bread instead of white bread. In the study, it was determined that elderly individuals with different chronic diseases could not be fed in accordance with their diseases in the tent city during and after the disaster. It is recommended to take into account the chronic diseases of elderly individuals in disaster planning.

Studies show that the elderly are among the most vulnerable groups and the most unprepared groups in disasters (Duruel & Avşar, 2023). The reasons for this are primarily that the elderly have difficult access to financial resources and reside in structures that are vulnerable to disasters. The

second reason is social deprivation. Post-disaster loneliness and temporary shelter conditions are also among the factors that increase elderly vulnerability. The fact that the vast majority of those who died in Hurricane Katrina in New Orleans in 2005 were elderly confirms this situation. In addition, previous studies reveal that the elderly who stayed in temporary shelter units after the disaster were exposed to social isolation over time, and physical and psychological problems increased. It was stated that as a result of the hurricane in Mississippi, 70 nursing home residents lost their lives in their facilities and were abandoned by their caregivers, they could not access the medicines they needed due to their chronic diseases and were in a difficult situation (İstanbul Sanayi Odası Yeşil Blog, 2021).

Follow-up of chronic diseases after disasters is very significant in terms of reducing mortality and morbidity. It was determined that clean food and medical support could not be accessed due to the destruction after the disaster, which led to sequelae or death in individuals with chronic diseases (Açkın & Tokem, 2023). For example, in 2017, 71.3% of the deaths in the hurricane in the Caribbean were the result of uncontrolled chronic diseases (Sofulu et al., 2023). The example of an elderly dialysis patient stranded at home after the hurricane in Puerto Rico, who was connected to the dialysis machine with the efforts of his caregiver, but his generator shutdown and phone lines cut, and lost his life due to developing infection supports this situation (Açkın &Tokem, 2023). In a study conducted 5 years after the Great East Japan Earthquake, it was determined that the incidence of kidney failure caused by hypertension increased, and accordingly, the rate of initiation of dialysis increased (Abe et al., 2022). Previous studies determined that the chronic diseases of the elderly individuals staying in temporary shelter units after the disaster are not taken into consideration and this situation may cause individuals to remain sequelae or die. It is known that individuals with cardiovascular disease are more likely to have a stroke if they do not take their medication, individuals with diabetes are more likely to develop hyperglycemia if they do not receive insulin injections, individuals who need oxygen support are more likely to experience respiratory arrest if they cannot access medical equipment, and individuals with kidney failure are more likely to experience cardiac arrest if they cannot access dialysis. Another medical problem of elderly individuals with chronic diseases is that their medical history cannot be accessed, and as a result, individuals have to be intervened without knowing their medical background. This situation reveals the negativities of not being able to access medical records after the disaster. There may be delays in applying effective treatment to individuals whose medical history cannot be accessed.

The data obtained from this study indicate the problems that will arise as a result of the medical deficiencies experienced by elderly individuals in the tent city. Considering the chronic diseases of the interviewees, it is noteworthy that the risk of sequelae and death mentioned in the study may be high. Our study findings show that it is of vital importance for elderly individuals living in tent cities to have medical follow-up for their chronic diseases and to pay attention to their nutrition in accordance with their diseases.

In unusual circumstances, the elderly should be monitored regularly. In this monitoring process, socio-demographic characteristics such as age, gender, the region they live in, and other various factors such as living conditions, social problems, health problems, functionality, and basic requirements should be taken into consideration. In particular, the basic needs of the elderly such as shelter, clothing, blankets, water, and food should be met (Uçku, 2015). From the results we obtained in our study, the need for follow-up of elderly individuals regarding their special conditions in the tent city came to the fore. Factors such as the health status, diet, and meal contents of individuals with chronic diseases should be followed and arrangements should be made according to the needs.

Seeking Support

There are some points to be considered when planning post-disaster psycho-social intervention for disadvantaged individuals. Some of these include making informative announcements for the protection of mental health, establishing a psychosocial hotline, conducting interviews by professionals in an appropriate environment, and the active work of experts in the field. If these issues are not met, it is considered that elderly individuals may encounter mental health problems (Bilge, 2020). Individuals develop different coping methods to protect their mental health. In the study, it was observed that elderly individuals applied socialization and turned to religion as support-seeking methods for coping.

Vulnerable groups must have access to basic services, security, community and family support, and general and specialized services. In basic services and security, factors such as hygiene, health, and food are determined and monitored individually, taking into account the basic needs of individuals (Arıca et al., 2023). In community and family support, studies are carried out to meet psychosocial needs and to eliminate inequality in society. Within focused services and specialized services, individuals need to be allocated space where they can perform their rituals without disregarding their religious beliefs. As an example of this situation, in the study conducted with the relatives of disaster victims after the Soma disaster, it was determined those rituals were supportive in the process of overcoming this trauma (Doymaz Aydın & Yıldırım, 2020). Another study revealed that rituals performed for spiritual and cultural purposes during the pandemic play a major role in overcoming this process (Hekimoğlu et al., 2022). If all these layers are realized but are not sufficient, advanced psychological support should also be provided.

Post-Traumatic Stress Disorder (PTSD) can be seen in individuals after disasters. A study conducted 15 months after the 2008 Sichuan earthquake to assess the likelihood of developing PTSD and general psychiatric morbidity in elderly survivors revealed that the relationship between age and the psychological impact of natural disasters is not well characterized (Jia et al., 2010). In the results of our study, it is noteworthy that elderly individuals feel the need for socialization, but this need cannot be met. Since the elderly are among the groups that can be more affected by disasters, it is necessary to have expert psychologists who can serve the elderly in temporary accommodation areas and be in one-to-one communication with elderly individuals.

Lessons Learned in Disasters

After devastating disasters, individuals and societies start to take precautions by acting in line with the experience of the event. In this regard, individuals and societies that try to make all the efforts necessary to minimize the risk as much as possible act with the instinct of self-protection against possible dangers. The lessons learned after disasters, which have many examples in history, enable individuals to minimize disaster damages by taking structural and individual measures. In this way, damages and losses that may occur due to disasters are minimized. The Great Hanshin Awaji Earthquake of 1995 and the Lisbon Earthquake of 1755, which are among the best examples, are significant disasters in which a culture of risk reduction and precaution in terms of disaster management was formed in both societies (D. Akın, 2017; Atlı, 2006). Undoubtedly, although there are many disasters in the world, the formation and establishment of disaster culture in individuals depends on many factors. Culture is at the forefront of these factors. Unfortunately, Turkish people are not fully advanced in taking precautions against disasters since they are a society living with a fatalistic perspective due to their mentality structure (Özmen & Özden, 2013). However, the 1999 Gölcük and Düzce Earthquakes appear as earthquakes in which the awareness of disasters has been formed in the individual and society to some extent and measures have been taken in this regard (Çilingir, 2018). Many regulations made in 1999 and reverse migration movements from big cities after the 2023 Kahramanmaraş Earthquakes are just a few of the measures taken to reduce disaster risks (Bodrum Dergi, 2023; Çilingir, 2018).

On the other hand, the reactions of individuals to disasters and the measures they take after disasters are within the scope of the lessons learned by individuals from disasters. No individual-specific study was found in the literature on the relevant subject. Within the scope of our study, the answers given by the elderly individuals are in the direction that taking structural and individual measures will help them to be prepared for disasters and minimize damage. In this regard, it can be stated that there is an increase in the tendency of individuals to reduce risk in terms of disaster awareness. Therefore, it is considered that more detailed studies to determine the reactions and tendencies of individuals after disasters will also contribute to the literature.

Limitations

This study has a couple of limitations. The first one is related to the scope of disaster types included in the research. Only the Kahramanmaraş Türkiye earthquake was included in this research, but other types of disasters were not studied. Another limitation is only individuals over the age of 65 elderly included in the study. The experiences of individuals under the age of 65 are not present in this study.

This study was carried out only in a specific area in Kahramanmaraş province. It includes elderly individuals in other regions and provinces.

Conclusion

Elderly individuals may be more affected by disasters than other individuals. This study, which was carried out to reveal the experiences of elderly individuals in the Kahramanmaraş earthquake, explains the experiences of elderly individuals in the area where they were caught in the disaster and the tent city after the earthquake. As a result of the study, it was determined that elderly individuals experienced shelter, food, heating, hygiene (personal hygiene, clothing) problems in the area where they were caught in the disaster, and financial difficulties, restricted mobility, nutrition suitable for their diseases, hygiene, and security problems in the tent city area. To increase the resilience of elderly individuals in disasters in Türkiye as in different parts of the world, it is recommended that elderly individuals should be included in all integrated disaster management processes, their exclusion from these processes should be prevented, and these processes should be carried out in a way to include the elderly by giving importance to disaster governance within the framework of public, private and civil cooperation.

Compliance with Ethical Standards

Ethics approval

Permits were collected from the Artvin Çoruh University Ethics Committee (permit No. E-18457941-050.99-83603) to conduct this study. All aspects of this research were conducted in accordance with the Artvin Çoruh University Social Scientific Research Ethics Committee Codes of Ethics.

Consent to participate

The participants of this study were given information about the study and their oral and written informed consents were gathered.

References

ABE, M., AKAISHI, T., ISHIZAWA, K., SHINANO, H., OHTOMO, H., ORIKASA, K., TAKAYAMA, S., MASAURA, A., MIYAZAKI, M., ABE, T., YOKOTA, K., & ISHII, T. (2022). A massive natural disaster, the Great East Japan Earthquake, and the incidence of dialysis due to end-stage kidney disease. *Journal of Nephrology*, *35*(3). https://doi.org/10.1007/s40620-021-01140-9

AÇKIN, B., & TOKEM, Y. (2023). Afetlerde Geriatrik Yaklaşım. *İzmir Katip Çelebi Üniversitesi Sağlık Bilimleri Fakültesi Dergisi*, *8*(2), 653–659.

AFAD. (2014). *Açıklamalı Afet Yönetimi Terimleri Sözlüğü*.

AFAD. (2023). *06 Şubat 2023 Pazarcık-Elbistan Kahramanmaraş (Mw: 7.7 – Mw: 7.6) Depremleri Raporu*.

AHMADI, S., KHANKEH, H., SAHAF, R., DALVANDI, A., HOSSEINI, S. A., & ALIPOUR, F. (2018). How did older adults respond to challenges after an earthquake? Results from a qualitative study in Iran. *Archives of Gerontology and Geriatrics*, *77*. https://doi.org/10.1016/j.archger.2018.05.008

AKIN, D. (2017). Modern Afet Yönetiminin Doğuşu: 1755 Lizbon Depremi. In Ö. Önder & M. Yaman (Eds.), *Afet Yönetimi* (1st ed., pp. 87–110). Ekin Yayınevi. www.ekinyayinevi.com

ARICA, F., ÇAKIR, C., & KAĞNICI, D. (2023). Kırılgan Gruplar Özelinde Afetlerde Psikososyal Hizmetler. *Afet ve Risk Dergisi*, *6*(1). https://doi.org/10.35341/afet.1173165

ATLI, A. (2006). *Afet yönetimi kapsamında deprem açısından Japonya ve Türkiye örneklerinde kurumsal yapılanma*. 320. https://books.google.com/books/about/Afet_y%C3%B6netimi_kapsam%C4%B1nda_deprem_a%C3%A7%C4%B1s.html?hl=tr&id=EhsVNAAACAAJ

BANKS, L. (2013). Caring for elderly adults during disasters: improving health outcomes and recovery. *Southern Medical Journal*, *106*(1).

BILGE, M. (2020). Türkiye'de Covıd-19 Pandemi Sürecinde Dezavantajlı Bireylere Yönelik Uygulamaların İncelenmesi: "Vefa Sosyal Destek Grubu" Örneği (Derleme). *Tıbbi Sosyal Hizmet Dergisi*, *0*(16). https://doi.org/10.46218/tshd.803673

BLAIKIE, P., WISNER, B., CANNON, T., & DAVIS, I. (2014). At Risk – Natural Hazards, People's Vulnerability and Disasters second edition: Routledge, London. *Journal of Homeland Security and Emergency Management*.

BODRUM DERGI. (2023, August 23). *Deprem Korkusu Yüzünden İstanbul'dan Tersine Göç Başladı*. https://www.bodrumdergi.com/post/202308241010

ÇAKMAK, H. , O. M. E. , A. R. (2018). Doğal Afetler, Eşitsizlikler ve Sağlık Sonuçları. In A. Akın (Ed.), *Halk Sağlığı* (1., pp. 88–94). Türkiye Klinikleri.

CHERNIACK, E. P. (2008). The impact of natural disasters on the elderly. In *American journal of disaster medicine* (Vol. 3, Issue 3). https://doi.org/10.5055/ajdm.2008.0018

ÇILINGIR, G. A. (2018). Türkiye'de Uygulanan Afet Yönetimi Politikalarının İncelenmesi: Yasal Düzenlemeler ve DASK. *Journal of Resilience*, *2*(1), 13–21. https://doi.org/10.32569/resilience.413310

CRESWELL, J. W. (2013). *QUALITATIVE INQUIRY & RESEARCH DESIGN Choosing Among Five Approaches* (3rd ed.). SAGE .

DEMİRÖZ YILDIRIM, S. (2023A). Integrated disaster management experience of people with disabilities: A phenomenological research on the experience of people with orthopedic disabilities in Türkiye. *International Journal of Disaster Risk Reduction*, *88*, 1–16. https://doi.org/10.1016/J.IJDRR.2023.103611

DEMİRÖZ YILDIRIM, S. (2023B). Yaşlı Bireyler Açısından Afetlerin Yönetimi. In D. Doruk Kundakçı & M. Pekesen (Eds.), *Afetlerde Yaşlılığa Gerontolojik Bakış Perspektifinden Yaklaşım* (1st ed., pp. 177–190). Nobel Akademik Yayıncılık. www.nobelkitap.com

DOYMAZ AYDIN, G., & YILDIRIM, Ş. (2020). Soma Maden Kazası Sonrası Yaşanan Ailevi ve Psikolojik Sorunlar. *Toplum ve Sosyal Hizmet*, *31*(3), 874–903.

DUKES, S. (1984). Phenomenological Methodology in the Human Sciences. *Journal of Religion and Health*, *23*(3), 197–203.

DURUEL, M., & AVŞAR, A. (2023). Kırılganlık ve Dirençlilik Kesişiminde Yaşlıların Afet Deneyimleri Hatay Örneğinde 6 Şubat 2023 Depremleri. *Pesa International Journal of Social Studies*, *9*(2), 103–120. https://doi.org/10.25272/j.2149-8385.2023.9.2.04

GÜDEN, R. A., & BORLU, A. (2023). Community nutrition in disasters and nutrition plan for vulnerable groups. *Food and Health*, *9*(1), 61–68. https://doi.org/10.3153/FH23006

HEKIMOĞLU, E., BILIK, M., UÇURUM, S., ERTEN, İ., & CAN, D. (2022). Pandemide Yas: Dini ve Kültürel Ritüellerini Yerine Getiremeyen Bireylerin Deneyimleri. *Psikoloji Çalışmaları / Studies in Psychology*, *0*(0). https://doi.org/10.26650/sp2021-899771

HENDERSON, T. L., ROBERTO, K. A., & KAMO, Y. (2010). Older adults responses to Hurricane Katrina: Daily hassles and coping strategies. *Journal of Applied Gerontology*, *29*(1). https://doi.org/10.1177/0733464809334287

HOFFMAN, S. (2009). Preparing for Disaster : Protecting the Most Vulnerable in Emergencies. *U.C. Davis Law Review*, *42*(April).

İSTANBUL SANAYI ODASI YEŞIL BLOG. (2021, AUGUST 30). *Ida Kasırgası Mississippi Nehri'nin yönünü tersine çevirdi - İSO Yeşil Blog*. İstanbul Sanayi Odası Yeşil Blog. https://www.isoyesilblog.com/ida-kasirgasi-mississippi-nehrinin-yonunu-tersine-cevirdi/

JIA, Z., TIAN, W., LIU, W., CAO, Y., YAN, J., & SHUN, Z. (2010). Are the elderly more vulnerable to psychological impact of natural disaster? A population-based survey of adult survivors of the 2008 Sichuan earthquake. *BMC Public Health*, *10*. https://doi.org/10.1186/1471-2458-10-172

JOHNSON, R. B., & CHRISTENSEN, L. (2016). Educational Research: Quantitative, Qualitative and Mixed Approaches. In *Jurnal Penelitian Pendidikan Guru Sekolah Dasar* (6th ed., Issue August).

KARAMAN, Z. T. (2016). Afet Yönetimine Giriş ve Türkiye'de Örgütlenme. In Z. T. Karaman & A. Altay (Eds.), *Bütünleşik Afet Yönetimi* (pp. 1–39). Birleşik Maatbaacılık.

LINES, R., FAURE WALKER, J. P., & YORE, R. (2022). Progression through emergency and temporary shelter, transitional housing and permanent housing: A longitudinal case study from the 2018

Lombok earthquake, Indonesia. *International Journal of Disaster Risk Reduction*, *75*. https://doi.org/10.1016/j.ijdrr.2022.102959

MAGRATH, J. (2007). Climate Alarm: Disasters increase as climate change bites. *Oxfam International*.

NAYLOR, A., FAURE WALKER, J., & SUPPASRI, A. (2018). Suitability of the early warning systems and temporary housing for the elderly population in the immediacy and transitional recovery phase of the 2011 Great East Japan Earthquake and Tsunami. *International Journal of Disaster Risk Reduction*, *31*. https://doi.org/10.1016/j.ijdrr.2018.05.022

O'BRIEN, B. C., HARRIS, I. B., BECKMAN, T. J., REED, D. A., & COOK, D. A. (2014). Standards for reporting qualitative research: A synthesis of recommendations. *Academic Medicine*, *89*(9), 1245–1251. https://doi.org/10.1097/ACM.0000000000000388

ÖZMEN, B., & ÖZDEN, A. T. (2013). Türkiye'nin Afet Yönetim Sistemine İlişkin Eleştirel Bir Değerlendirme. *İstanbul Üniversitesi Siyasal Bilgiler Fakültesi Dergisi*, *49*(49).

SOFULU, F., ÖZGÜRSOY URAN, B. N., ÜNSAL AVDAL, E., & TOKEM, Y. (2023). Afetlerde Kronik Hastalık Yönetimi. *İzmir Katip Çelebi Üniversitesi Sağlık Bilimleri Fakültesi Dergisi* , *8*(2), 641–645.

TONG, A., SAINSBURY, P., & CRAIG, J. (2007). Consolidated criteria for reporting qualitative research (COREQ): A 32-item checklist for interviews and focus groups. *International Journal for Quality in Health Care*, *19*(6), 349–357. https://doi.org/10.1093/intqhc/mzm042

TWIGG, J. (2015). *Disaster Risk Reduction*. Humanitarian Policy Group Overseas Development Institute.

UÇKU, R. (2015). Olağandışı Durumlarda Yaşlı Sağlığı. In N. Etiler (Ed.), *Olağan dışı Durumlar ve Halk Sağlığı Kongresi* (p. 8687). HASUDER Yayınları.

ZHANG, F., CHAN, A. P. C., & LI, D. (2023). Evaluating building egress safety for the elderly under different urgent-level circumstances in high-density cities: Based on ABEM-enabled simulation. *International Journal of Disaster Risk Reduction*, *87*. https://doi.org/10.1016/j.ijdrr.2023.103587

Özet

Türkiye'de 6 Şubat 2023'te yaşanan iki büyük deprem ülkede "asrın felaketi" olarak adlandırılmış ve yaklaşık on üç buçuk milyon insanı etkilemiştir. Remi rakamlara göre Kahramanmaraş merkezli iki deprem, 50.748 kişinin ölümüne, 115.353 kişinin de yaralanmasına neden olmuştur. Ayrıca devletin resmi kayıtlarına göre 37.984 binanın tam olarak yıkıldığın açıklanmıştır. Deprem nedeniyle bölgede yaşayan insanlar ve farklı bölgelerde yaşayan yakınları birçok yönden ciddi olarak etkilenmiştir. Bir afet durumuna neden olan depremden, insanların nasıl etkilendikleri, ne kadar etkilendikleri ve bu etkilere ne tepkiler verdikleri değişmekle birlikte afetlerde en yoğun etkilenecek olan kırılgan gruplardan birisinin yaşlılar olduğu bilinmektedir.

Afetlerin yarattığı aile, yaşam alanı, bağımsızlık, sağlık, ekonomi vb. kayıplar yaşlılar için afetin etkilerini daha da arttırabilmektedir. Yaşlı bireylerin ihtiyaç duydukları bakım gereksinimlerinin karşılanmaması veya bu gereksinimleri karşılayan sosyal çevrenin yok olması bu bireylerin afetlerden etkilenme oranlarını arttırabilmektedir. Ayrıca yaşlıların birden fazla sağlık sorunu, hareket bozukluğu, yetersiz sosyal ve finansal kaynak ile bazı işlevlerde yaşa bağlı azalması durumu afetlerden etkilenme olasılıkları arttırmakta ve bu durum onların depremden sonra karşılaştıkları zorluklara verdikleri tepkileri etkilemektedir.

Etkili bir afet yönetim politikasının oluşturulmasında ve afetlerin kırılgan gruplar üzerindeki etkilerinin anlaşılmasında öncelikli olarak yaşlıların nelere gereksinim duyduğunun anlaşılmasının kritik bir öneme sahiptir. Bu doğrultuda gerçekleştirilen bu nitel çalışma ile yaşlıların depremin ilk günleri ve sonrasında yerleştikleri geçici barınma alanlarında (çadır kent) yaşam deneyimleri, ihtiyaçları, bu süreçte karşılaştıkları sorunları ve baş etme yöntemlerinin saptanması planlanmıştır.

Çalışmada yaşlı bireylerin afet deneyimlerini derinlemesine keşfetmek amacıyla nitel araştırma desenlerinden olan fenomenolojik araştırma deseni kullanılmıştır. Örneklem seçiminde amaçlı örneklem yöntemi kullanılmıştır. Araştırma verileri Kahramanmaraş depremlerini yaşayan bölgede bulunan çadırkentlerde yaşayan 65 yaş ve üstü bireylerler ile yüz yüze derinlemesine görüşmeler

yapılarak toplanmıştır. Araştırmada örneklem sayısının belirlenmesinde Creswell'in yaklaşımı olan ve nitel araştırmalarda geçerli olan veriye doygunluk ilkesine göre belirlenmiştir. Araştırma süresince görüşmeler devam ederken veriler de analiz edilmiştir. Veri analiz süreci içerisinde çalışmanın doygunluğa uğradığı noktada çalışma sonlandırılmıştır. Bu kapsamda on iki (12) yaşlı birey ile görüşmeler sağlanmış ve çalışma doygunluğa ulaşmıştır. Araştırma kapsamında toplanan veriler "Yaşlı bireylerin deprem deneyimleri ve yaşanılan afete ilişkin var olan sorunları, beklentileri, algı ve tutumları nasıl açıklanabilir?" ana sorusu özelinde analiz edilmiştir. Veriler MAXQDA 2022 programına aktarılmış ve içerik analizi yöntemi ile araştırmacılar tarafından analiz edilip tema ve alt temalar oluşturulmuştur. Araştırmanın raporlanması araştırmanın tüm süreçlerini kapsayacak şekilde O'Brain vd. (2014) tarafından oluşturulan "Nitel Araştırmaları Raporlama Standartları (SRQR)" ve Tong vd. (2007) tarafından oluşturulan "Nitel Araştırmanın Raporlanması İçin Birleştirilmiş Kriterler (COREQ)" esas alınarak gerçekleştirilmiştir. Araştırmanın geçerliliği; inandırıcılık, aktarılabilirlik, tutarlılık ve teyit edilebilirlik şeklinde gerçekleştirilmiş ve bu boyutuyla rapor edilmiştir.

Araştırma bulguları yazarlar tarafından okunup kodlamalar yapılıp uzman görüşleri ile kod uzlaşısı sağlandıktan sonra ortak temalar belirlenmiştir. Bu çerçevede yazarlar tarafından üç tema oluşturulmuştur. Bu temalar; zorluklar ve ihtiyaçlar, afetlerde öğrenilmiş dersler ve destek arayışıdır. Çalışma sonucunda yaşlı bireylerin afete yakalandıkları alanda; barınma, gıda, ısınma, hijyene yönelik zorluklar çadırkent alanında ise maddi sıkıntılar, hareket kısıtlılığı, hastalıklarına uygun beslenme, hijyen ve günlük ihtiyaçları karşılamada zorluklar yaşadıkları belirlenmiştir. Zorluklar çerçevesinde ihtiyaçların da bu zorlukların giderilmesine yönelik oluştuğu belirlenmiştir. Katılımcıların afet sonrası süreci atlatmak için destek arayışında dine yöneldikleri veya çadırkent içerisinde sosyallik kurmaya çalıştıkları belirlenmiştir. Deprem deneyimi sonrası katılımcıların ağırlıklı olarak bireysel hazırlık yapacağı sadece birinin yapısal hazırlık yapacağını belirlenmiştir.

Sonuç olarak araştırma sonuçları alandaki dirençsiz gruplara yönelik farklı çalışmaları desteklemiş ve yaşlı bireylerin Kahramanmaraş depreminde de diğer bireylerden daha fazla etkilendiğini ortaya koymuştur. Kahramanmaraş depremleri sonrası yaşlı bireylerin afete yakalandıkları alanda ve çadırkent yaşamları süresince farklı sorunlar yaşadıkları ve zorluklarla karşılaştıkları belirlenmiştir. Dünyanın farklı bölgelerinde olduğu gibi Türkiye'de de yaşlı bireylerin afetlerde dirençliliğini arttırmak için yaşlı bireylerin bütünleşik afet yönetim süreçlerinin tamamına dahil edilmesi, bu süreçlerde dışlanmalarının önüne geçilmesi, bu süreçlerin kamu, özel ve sivil iş birliği çerçevesinde afet yönetişimine önem vererek yaşlıları kapsayacak şekilde gerçekleştirilmesi önerilmektedir.