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ORIGINAL PAPER

Medical rescue team's experiences in disaster response to individuals with special needs: The case of Türkiye

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Abstract

Disasters, which have increased in frequency and severity worldwide in recent years, negatively affect all individuals and the environment in the region where they occur and cause destruction. However, previous studies indicate that individuals with special needs are one of the groups most negatively affected by disasters. Accessibility of first aid and rescue services, an essential part of disaster management for individuals with special needs who are shown to be more vulnerable in disasters and emergencies, reduces this vulnerability. This study aims to understand and explore how the medical rescue team intervenes with individuals with special needs in disasters and emergencies. A qualitative case study is used to obtain in-depth and detailed information. The data are collected through semi-structured interviews, document review, and reflective researcher diary. The findings show that the rescue team did not recognize the general characteristics of individuals with special needs and had difficulties in recognizing, communicating, and intervening in emergencies. Therefore, the findings again drew attention to the fact that individuals with special needs are more vulnerable in disasters and emergencies from a different perspective. The current situation is thoroughly examined in the event of a disaster, and recommendations are made to enhance the rescue and medical intervention services that will be provided to people with special needs, to support disaster management policies, to lessen potentially harmful situations, and to enable people with special needs to access higher-quality health services in disasters and emergencies.

Keywords Disaster and emergencies · Disaster response · Individuals with disabilities · Medical rescue · Qualitative study

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1 Introduction

Disasters significantly and negatively affect all individuals in the region where they occur. Natural or man-made disasters cause structural damage, loss of life and poverty, economic losses, and various difficulties related to service provision (Cutter and Finch 2008). This situation causes disruption of the normal functioning of society and even irreversible disappearance in certain cases (Miletti 1999). The problems that arise in the functioning of society affect each social layer of that society in different ways (Bolin 1998).

Individuals with special needs are one of the social groups in all societies. Having special needs is a framework concept used in different disciplines to group various individuals. This includes the elderly, abandoned children, people needing intensive care, and people with disabilities (Bronfenbrenner 1979). Special needs status is often used to describe individuals with disabilities. In this respect, an individual with special needs is defined as an individual who differs significantly and often negatively from the expected skill levels of their peers for different reasons (Wehmeyer et al. 2017). It is thought that 1/5 of the world's population consists of individuals with special needs with at least one disability (WHO 2011).

Many individuals with special needs need different levels of support in their daily lives. This support requirement of individuals with special needs during ordinary conditions gains a different dimension after disasters and accompanying emergencies (Kailes and Enders 2007). Due to the destructive effects of disasters, systemic problems, and various other factors, individuals with special needs become particularly vulnerable during disasters (Blaikie et al. 2004). This situation causes individuals with special needs four times more vulnerable in disasters and emergencies than others without special needs (Aldrich and Benson 2008). In addition, these individuals need customized practices in matters such as preparation required by a disaster or emergency, taking necessary initiatives as soon as this situation occurs, or requesting and addressing their needs after a disaster or emergency (Peek and Stough 2010). For example, individuals with special needs who have physical disabilities experience mobility limitations due to their disability. This limitation makes evacuation attempts difficult and causes them to experience difficulties accessing essential services such as rescue, food supply, water supply, and medical care during and after the disaster (Rowland et al. 2007).

Similarly, individuals with special needs who have visual or hearing impairments may experience problems in receiving warning messages or emergency instructions promptly. Individuals who use assistive technology or need personal assistance cannot access this assistance in disasters and emergencies. As another situation, health problems of individuals with special needs due to disabilities can be significantly affected by disasters and emergencies. Situations such as drug supply problems, structural problems related to health services, limitations related to the provision of health services, and increased physical and emotional stress on health personnel after disasters and emergencies may cause the health problems of individuals with special needs to worsen (Kett and Twigg 2007).

Emergency health services constitute one of the crucial steps in disaster interventions and disaster planning. In disaster responses, healthcare services are multifaceted and critical in managing immediate and long-term health outcomes (Ardalan et al. 2014). In disaster situations, healthcare teams provide life-saving emergency interventions such as surgery, trauma care, and resuscitation for disaster-related injuries (Eisenman et al. 2007). They also manage chronic conditions that often worsen due to the stress and adverse conditions caused by disasters (Schneider 2002). Medical personnel are also

responsible for preventing and managing infectious disease outbreaks, common in disaster scenarios due to the disruption of health services and the proximity of living areas (Williams Nocera and Casteel 2008). Medical services in disaster response thus cover a range of health needs, from immediate physical injuries to long-term mental health support, underscoring their central role in disaster management. After disasters, this multifaceted medical support situation causes significant difficulties in accessing health services (Roces et al. 1996).

Difficulties in accessing health services negatively affect the lives of individuals. Many individuals with special needs live with ongoing health problems, and others are subject to practices requiring regular medical control. Considering the usual conditions, this situation may cause severe problems for individuals with special needs to benefit from health services. Although there are cases such as experiencing physical difficulties due to the inaccessibility of institutions (Langkamp et al. 2015) and not being able to benefit from the services needed to the desired extent due to poor coordination of health services (Veltman et al. 2001), it is seen that the problems mainly focus on the lack of knowledge and practice of health personnel (Burke and Cocoman 2020). At this point, the fact that health personnel do not have sufficient knowledge about individuals with special needs (such as their characteristics, intervention needs, and communication approach) and do not make needs-based adaptations in their interventions makes access to health services even more challenging (Cashin et al. 2021). For example, problems such as managing problem behaviors of individuals with intellectual disabilities (Burke and Cocoman 2020; Spassiani et al. 2020), making environmental arrangements suitable for the characteristics of individuals with autism spectrum disorders (ASDs) (Cashin et al. 2021; Urbanowicz et al. 2020), and communicating appropriately in intervention with individuals with hearing impairment are mentioned (Ruesch 2018; Velonaki et al. 2015). Beyond disability-specific problems, research shows that health personnel has common problems in the areas of having problems in communicating effectively and needing to know the characteristics of individuals (Burce and Cocoman 2020; Cashin et al. 2021; Ruesch 2018).

In terms of disasters and emergencies, it is seen that the problems are similarly associated with the need for more knowledge of healthcare personnel (Subramaniam and Villeneuve 2020). Although the number of studies focusing on the problems and needs of healthcare personnel in intervening with individuals with special needs in disasters and emergencies is limited, the existing literature points to a lack of knowledge in various areas (such as communication, intervention planning, and individual recognition). For example, Engelman et al. (2013) emphasize that health personnel need help in intervening with individuals with hearing impairment, especially in communicating, and that there are often misunderstandings in communication. Similarly, Kelly and Hassett-Walker (2016), in a study conducted in New Jersey, reported that health personnel had problems recognizing individuals with ASD and intervening by the characteristics of individuals. Remarkably, Kelly and Hassett-Walker (2016) mention that even though there is a law enacted in New Jersey in 2008 that mandates training on the recognition and intervention of individuals with ASD, most of the participants did not complete this training. Rowland (2007) examined the interventions of emergency responders in Northern Kansas for individuals with physical disabilities. At the end of the research, it was emphasized that there needed to be a specific regulation or directive for the staff to follow. It reported that the staff needed a training program on the needs of individuals with physical disabilities in disasters and emergencies. Despite the increased vulnerability of people with disabilities, especially during disasters, it can be seen that there is a significant gap in the provision of appropriate and accessible medical services for this group. First, the physical infrastructure of

emergency medical facilities often lacks necessary accessibility features, preventing people with disabilities from receiving critical medical services (Fukuda Shimizu and Seto 2015).

Furthermore, disaster response policies do not always adequately consider the specific needs of persons with disabilities, leading to the systematic exclusion of this population from emergency preparedness plans (Eisenman et al. 2007). Furthermore, the lack of awareness among emergency medicine professionals about the needs and potential complications specific to various disability groups further hinders the provision of effective care (Wachob and Pecsi 2017). On the other hand, there appears to be a lack of knowledge about crucial disability groups, even among healthcare personnel. These systemic problems represent critical gaps in disaster response systems and pose serious challenges to the health and safety of individuals with special needs during disasters (Peek and Stough 2010). This situation may cause the provision of emergency health services to move away from being an inclusive service for all members of society.

Inclusive emergency medicine is based on integrating accessibility and inclusion in all aspects of emergency medical care, from preparedness and response to recovery and mitigation (Bradley 2011). Inclusive emergency medicine is a moral and practical necessity for efficient and effective disaster management. By ensuring that emergency health services are accessible and appropriate for all members of society, including people with special needs, response efforts can be more comprehensive and practical (Wolbring 2009). Inclusive practices can help existing practices work more effectively. They enable people with disabilities to promptly access the care they need, reduce the risk of long-term complications, and promote faster recovery (O'Sullivan et al. 2013).

Moreover, inclusiveness in disaster management can increase resilience among all members of society. When everyone, including the most vulnerable, is considered in disaster planning and response, society can face and protect itself from disasters (Blaike et al. 2004). Therefore, the inclusive emergency medicine approach has great value in disaster and emergency planning.

Regarding disasters and emergencies, Türkiye was ranked among the countries in the high-risk group with a score of 5.0 in the Index for Risk Management Report (INFORM 2023). With the high-risk group and past disaster experiences, disaster preparedness plans are made by different institutions across the country. When these plans are examined, it is seen that there is a limited level of explanation for individuals with special needs, but there needs to be a customized service plan. For example, Türkiye Disaster Risk Reduction Plan 2022–2030 [Ministry of Internal Affairs, Disaster and Emergency Management Presidency (AFAD) 2022] emphasizes increasing disaster awareness levels of individuals with special needs. The Ministry of Family and Social Policies' National Action Plan on the Rights of Persons with Disabilities is stated that it is aimed to do inclusive planning for disasters and emergencies by international standards, to develop accessible health services, and to carry out the post-disaster rehabilitation process in an accessible and appropriate manner for individuals with special needs. The Hospital Disaster and Emergency Plan Preparation Guide (HAP 2021) states that disasters and emergencies disproportionately affect individuals with special needs. Therefore, it is emphasized that they should be prioritized in providing health services. In the same plan, it is stated that a social service unit officer is assigned to coordinate health services and social service activities to be provided to individuals with special needs in disasters and emergencies. However, these disaster and emergency plans have no transparent and clearly defined implementation processes for individuals with special needs.

In Türkiye, it is reported that health services in disasters and emergencies will be delivered by the National Medical Search and Rescue Team (UMKE) (Ministry of Health

2021). UMKE comprises health personnel who provide medical rescue and emergency health services to disaster victims during disasters and emergencies in Türkiye and abroad. UMKE personnel carry out their primary duties in health institutions during ordinary times when disasters and emergencies do not occur. When an emergency arises, they take the necessary equipment, reach the incident scene, and provide medical rescue and first aid services. UMKE personnel receive training at two levels: basic and advanced (Ministry of Health 2022). When the training given to 12 personnel is analyzed, it is seen that inclusive emergency medicine practices are included in these training processes to a limited extent. This situation is thought to cause limitations in presenting inclusive emergency medicine practices for individuals with special needs in a possible disaster. In Türkiye, there needs to be a study examining the process of health personnel providing services to individuals with special needs in disasters and emergencies. However, similar studies focusing on the access of individuals with special needs to health services in daily life emphasize the need for more knowledge of health personnel. For example, Ayyıldız and Ulupınar (2019) emphasized that nurses often have difficulty communicating and need support in approaching individuals with special needs. Özata and Karip (2017), in their study examining the views of individuals with special needs on their access to health services, stated that the participants emphasized that they had significant difficulties in communicating with health personnel and were not adequately informed by health personnel. Similarly, in the Survey on the Problems and Expectations of the Disabled conducted by the Turkish Statistical Institute (TUIK 2010), it was reported that 57% of individuals with special needs had difficulty communicating with healthcare professionals, and 47% of them did not receive sufficient information from healthcare personnel.

This study examines the intervention process of UMKE personnel for individuals with special needs in disasters and emergencies. For this purpose, answers to the following questions were sought;

1. How does UMKE personnel intervene with individuals with special needs in disasters and emergencies?
2. What are the problems, needs, and suggestions regarding the process of UMKE personnel's intervention in individuals with special needs in disasters and emergencies?

2 Methodology

2.1 Research design

Qualitative research methods were used to examine in depth how individuals with special needs are intervened in emergencies and the health personnel's experiences in the process. This study was designed as a case study to holistically examine UMKE personnel's response process to individuals with special needs in disasters and emergencies. The case study is a qualitative research design that reveals how and in what way the case or the cases are affected by factors such as individuals, processes, and events with an in-depth and holistic perspective (Creswell 2012). In qualitative case studies, answers to "how" and "why" questions are generally sought, and it is aimed to examine different aspects of the situation in depth in a holistic manner (Yin 2009a).

Different classifications of case studies have been presented in the literature (de Vaus 2001; Yin 2009a). These classifications are made depending on the case being studied

(e.g., local, outlier case), the purpose of the case study (e.g., intrinsic, exploratory), the approach adopted (e.g., theory building, illustrative/descriptive), process (e.g., retrospective, snapshot, nested), and methodological preferences (Thomas 2011). In case studies, a single unit to be examined can be found as well as more than one case can be examined (Yin 2009b). When the process is planned as a single case, methodological preferences can be used as retrospective, snapshot, or diachronic. When the process is planned as multiple cases, nested, parallel, and sequential methodological preferences can be used (Thomas 2011). From this point of view, in the study, the interventions of UMKE personnel toward individuals with special needs in disasters and emergencies were handled as a single case. For this reason, the research is a single case study. According to its purpose, it is an intrinsic and exploratory case study because it examines the interventions of UMKE personnel to individuals with special needs in disaster situations in a holistic and detailed manner, and there need to be more studies in the literature.

2.2 Participants

Criterion sampling, one of the purposeful sampling types, was used to determine the participants. Criterion sampling is the study of people, situations or events that meet the qualifications, and criteria created by the purpose of the research (Yin 2009a). In this context, conditions for compliance with the inclusion criteria were sought for participation in the study. These conditions were determined by participating in disaster response and rescue operations in at least two regions of Türkiye, intervening with at least one individual with special needs in a previous disaster, and volunteering to participate in the study. Of 14 participants who volunteered to be included in the study, 10 were male, 4 were female and their age ranged from 25 to 46. The participant group of the study consisted of 14 healthcare professionals working in UMKE. In the research report, participant names were replaced with pseudonyms in accordance with ethical rules (Glesne 2014).

2.3 Data collection methods

In the qualitative research process, data collected through various sources, environments, and tools are essential in revealing the situation under study (Bogdan and Biklen 2007). In this study, data were obtained through semi-structured interviews, document review, and reflective researcher diary to examine the situation comprehensively in its context (DeWalt and DeWalt 2001; Merriam 2009). The data collection techniques used in the research were prepared based on the research questions. In this context, the data collection techniques used to collect data related to the research questions are given in Table 1.

2.4 Data analysis

Data analysis process in qualitative research includes organizing the data obtained, preliminary reading process, coding the data, organizing the themes, and organizing the data a series of closely interconnected steps involving reporting and interpretation (Creswell 2015).

In the first step of the data analysis procedure, the recorded interviews were listened to several times and translated verbatim. The transcripts of the interviews with 14 participants

Table 1 Data collection techniques and research questions matrix

Data collection techniques research questions	Interview	Document analysis	Reflective Researcher Diary
How do medical rescue team members respond to individuals with special needs in disasters and emergencies?	√	√	√
What are the problems, needs and suggestions of medical rescue team personnel regarding the process of providing intervention to individuals with special needs in disasters and emergencies?	√	√	√

were combined into a single text. To recognize and explore the main ideas of the participants, the text was read and re-read as a whole.

In the second step, the documents accessed during the data collection process were analyzed together with semi-structured interviews and the researcher's diary, and the results obtained were transferred to the researcher's diary. The documents accessed by the researcher are generally official documents and include regulations, circulars, guidelines, training documents, and disaster planning. They contributed to obtaining information on the disaster and emergency experiences of individuals with special needs, identification of individuals with special needs in disasters and emergencies, communication with individuals with special needs, and medical interventions.

Then, the semi-structured interviews and document review reports that were ready for analysis, which the researchers transcribed and put together, were uploaded to the MAXQADA 2020 program for analysis. The researchers analyzed all the data codes through the program. In the coding phase of the obtained data, the views of the participants were analyzed and codes were given to describe their views (Miles et al. 2014). Once the initial coding phase was over, the codes were shared with a colleague with qualitative research experience, who reviewed the data set, made the coding, and accepted the codes. The codes obtained with MAXQADA 2020 were grouped simultaneously with the collaboration of our colleague and the authors; the codes were then combined to form sub-themes, and the sub-themes were combined to make the main themes. After the coding phase was completed, sub-themes were formed by combining the codes and main themes were formed by combining the sub-themes. In total, 5 themes and 10 sub-themes were reached. Figure 1 shows the data analysis process step by step.

2.5 Trustworthiness

In case studies, it is stated that certain measures can be taken to ensure reliability, credibility, internal validity, external validity, and construct validity (Glesne 2014). In this context, data diversity was provided through semi-structured interviews, document reviews, and reflective researcher diary in the data collection process. The researcher's diary reflected the difficulties encountered in the field, experiences and suggestions for research. Researchers regularly addressed the consistency of data obtained through various data collection techniques. Video recordings of semi-structured interviews, transcripts in the form of dialogue and documents were stored in virtual environments to prevent possible data loss. The findings obtained in the research were discussed in light of the literature. In

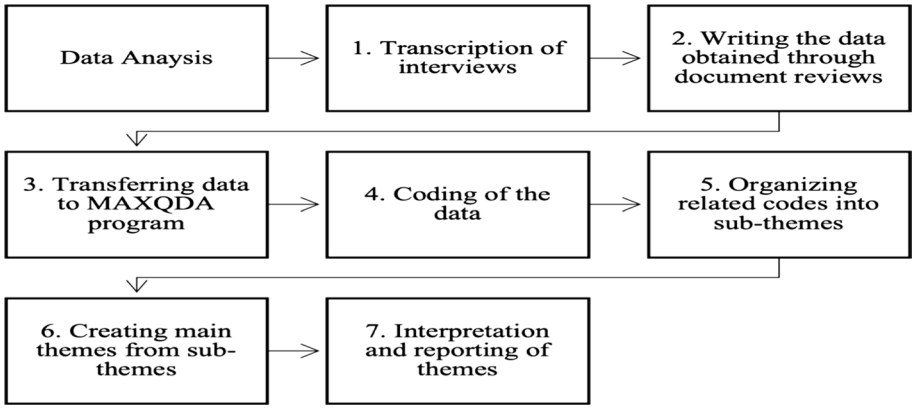


Fig. 1 Data analysis process

addition, Anadolu University Ethics Committee's approval numbered Anadolu University was obtained that the study was ethically appropriate. In light of these precautions taken during the research process, the research is a valid and reliable research.

3 Findings

The data analysis findings obtained through semi-structured interviews, document analysis, and researcher diary consist of five main themes. Figure 2 shows the themes and sub-themes, respectively.

3.1 Having special needs from UMKE perspective

In this section, sub-themes were related to the main theme of being with special needs, the understanding of the concept of individuals with special needs, the classification of individuals with special needs, and the identification of individuals with special needs by UMKE personnel.

3.1.1 Understanding of the concept of individuals with special needs by UMKE personnel

The participants frequently stated that individuals with special needs have difficulty meeting their basic needs, such as eating, using the toilet, and moving. Therefore, it is seen that the concept of individuals with special needs is interpreted as individuals who cannot meet their needs independently. For example, Mr. Eray said, "For me, the term individual with special needs is simply and clearly a term for a person who cannot meet his/her own needs." his words are an important example of this situation. In connection with the inability of individuals with special needs to meet their needs independently, it was stated that they could meet their daily needs by receiving support from those around them. Mr. Bilal said, "For me, I think of it as a group of people who need other people and cannot fully fulfill their own needs.", This is an example of this understanding of the participants. Through the semi-structured interviews supporting these views of the participants, Ms. Merve stated

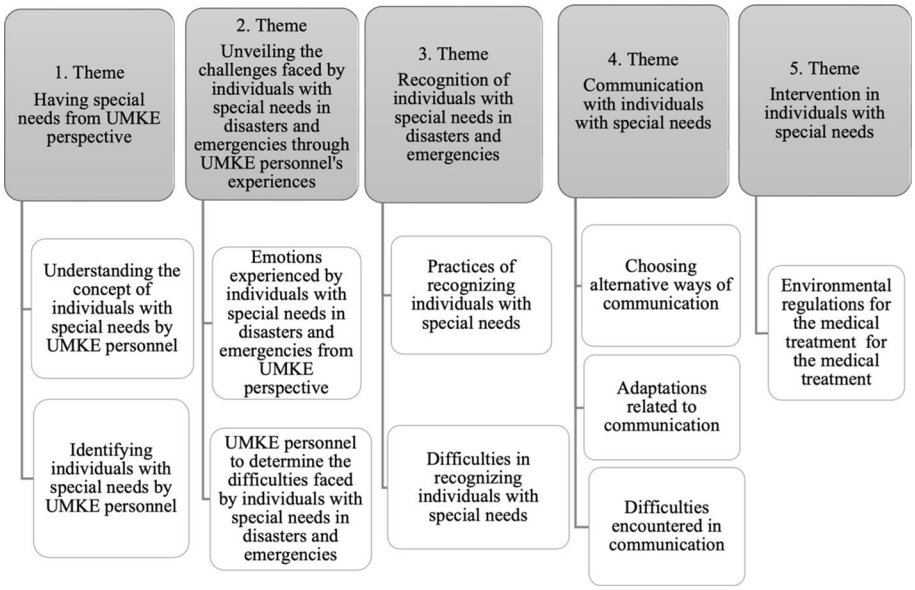


Fig. 2 Themes and sub-themes

that she knew an individual with special needs closely and that this person could meet her/his basic needs such as eating and toileting with the help of her/his mother (Researcher's Diary).

It was concluded that the participants associated individuals with various types of disability with the concept of individuals with special needs. Related to this point, Mr. Furkan said, "So these are disabled people; walking, hearing, seeing, speaking…", which provides clues about associating individuals with disabilities with the concept of individuals with special needs. Regarding the term individual with special needs, Mr. Mert said, "When we say special needs, we think of our friends with disabilities. In other words, they have special needs." Similarly, Mrs. Eylül, who associated being different from individuals with typical development in terms of developmental characteristics with the inability to fulfill the function of various senses such as vision and hearing and having limitations in psychical functions such as movement, expressed her views as follows: "As the name suggests, I think of people with special needs, I do not know, sensory, physical, mental, special needs."

Another remarkable finding related to UMKE personnel's identification of individuals with special needs is how they named individuals with special needs. It is seen that the participants use very old and no longer preferred words when referring to individuals with special needs. These terms are given as a word cloud below.

3.1.2 Identifying individuals with special needs by UMKE personnel

In the findings, it is prominent that the participants stated that they did not have sufficient information about the typical and social characteristics of individuals with special needs. Although the participants provided services to individuals with special needs in their routine business life and disaster situations, when the participant demographic information

form was examined, it was found that they still needed to receive training on individuals with special needs. Ms. Eylul's statement summarizes the situation, "Frankly, I don't have much information. So we really have shortcomings in this regard. I would like to make up for that."

Although the majority of the participants stated that they had a lack of knowledge about the general characteristics of individuals with special needs, some findings were obtained regarding the types of disability and the social lives of individuals with special needs. UMKE personnel classify individuals with special needs into two categories: those with medical diagnoses and those in disadvantaged groups. According to most participants, individuals with chronic, genetic, or other health conditions and individuals with different types of disabilities, such as hearing, vision, physical, and mental, are categorized as individuals with special needs. Mr. Mert said, "In other words, individuals who have a physiological deficiency in any of body parts or who have mental problems are special individuals.", which is an example of the classification of individuals with different types of disability as individuals with special needs. Similarly, Mr. Osman said, "I also have one son. He also has a special requirements report. He is diabetic. He has type 1 diabetes. We are dependent on insulin. I know that because of my son. Of course, like this, MS patients, SMA patients…", which shows that individuals with various health problems are individuals with special needs.

When these findings were examined, it is seen that the knowledge of UMKE personnel is relatively superficial and generalizing. For example, Mr. Yusuf said, "For hearing impaired individuals, you know, now there are special sign languages for hearing impaired individuals." Mr. Kaan stated, "As a physical handicap, the body cannot easily do what we can do. They can't, I can say.", and Mr. Mert expressed, "For those who cannot see, they have an alphabet. Well, what alphabet are they? They are trying to communicate with their fingers somehow. They read."

In addition, another remarkable finding is the understanding of the giftedness of individuals with ASD. For example, the following statements of Mr. Eray should be evaluated in this direction: "For example, we can see that some autistic disabled people are talented in some branches. For example, in terms of mathematics. For example, there was an autistic disabled person in the unit I worked at. For example, there was no four-to-five-digit multiplication that the child could not do." Mr. Bilal, one of the participants who supported this view of Mr. Eray, stated after the interview that individuals with ASD are gifted as far as he watches television series and movies (Researcher's Diary).

Another approach was found to be the categorization of individuals who are described as disadvantaged in society as having special needs. Elderly individuals, children, and refugees, among the disadvantaged groups, are thought to have special needs. Mr. Yusuf said, "So, after a certain age, they cannot sustain their life; they need care. In my opinion, this would be a special requirement." These statements were significant in that they indicated that older individuals had special needs, according to UMKE personnel. Mr. Osman said, "Of course, children under the age of four and five who cannot afford things can also be included in this category.", which shows that babies and children had special needs. Refugees are considered to have special needs because they have difficulties communicating in daily and business life. Ms. Eylul said: "We also have refugees, and we do not speak the language. Even that is a problem for us, I think. For me, I think those people have special needs, too. Because I cannot communicate with them."

One of the remarkable findings related to UMKE personnel's definition of individuals with special needs is how they named individuals with special needs. It is seen that the participants used the words "mentally disabled person, individuals with physical problems,

obstacle, visually impaired, impairment, autistic disabled people, physical handicap, individuals with mental disorders, mental problem, mental illness person, autistic, speech impaired, handicapped, mentally handicapped, person with physical problem, individuals with mental disorders, mentally problematic people, deaf, mute" which are quite old and not preferred to be used anymore. The word cloud on how UMKE personnel named individuals with special needs is given in Fig. 3.

3.2 Unveiling the challenges faced by individuals with special needs in disasters and emergencies through UMKE personnel's experiences

This section provides a comprehensive exploration of the experiences and challenges faced by individuals with special needs, as seen through the lens of UMKE personnel.

3.2.1 Emotions experienced by individuals with special needs in disasters and emergencies from UMKE perspective

The participants frequently expressed the disproportionate effects of disasters and emergencies on individuals with special needs, and it was stated that individuals with special needs experienced some negative emotions in disasters and emergencies. Ms Eylul said, "I think that an individual with visual impairment or disabilities panics more at the time of a disaster and cannot make sense of it.", which is an example of the panic that individuals with special needs experience in disasters and emergencies. Ms. Büşra expressed, "When I had the Elazig earthquake, there was such a family in the region. For example, the family had a child with sequelae after a seizure. They experience twice as much as we fear." These words indicated that individuals with special needs experience more fear in times of disaster and emergency than individuals with typical development. Another finding related to negative emotions is the feeling of anxiety. For example, Mr. Alper said, "He will feel more alone anyway. That's anxiety, which leads to anxiety. "This is important in explaining the anxiety experienced by individuals with special needs in disasters and emergencies.

In addition to the negative emotions experienced by individuals with special needs in disasters and emergencies, not feeling pain or emotion has been a striking finding. To give an example of this situation, Mr. Eray stated, "For example, a normal person has a sense of pain. There is a feeling of crying. You cannot find those feelings in those individuals." Mr. Osman, likewise, expressed his views that there were individuals with special needs who did not feel pain: "But I think it's a little harder with mental disabilities. Because some



Fig. 3 The word cloud on how UMKE personnel named individuals with special need

people don't feel pain. There are also individuals with mental disabilities who do not know what pain is."

3.2.2 UMKE personnel to determine the difficulties faced by individuals with special needs in disasters and emergencies

According to the data obtained in the research, it has been found that individuals with special needs experience difficulties in communication, response to disaster situations, and environmental conditions in disasters and emergencies. Considering the difficulties related to communication, it was found that individuals with special needs had difficulties in expressing their experiences, receiving, and responding to calls for help in times of disaster and emergency. The statements of Ms. Merve, "But they cannot protect themselves, they cannot express themselves or they cannot express where they hurt, that is, they cannot tell where and what is happening" is an important example of individuals with special needs having difficulty in expressing themselves in disasters and emergencies. Regarding the inability of individuals with special needs to respond to the calls for help, Ms. Özge said, "In some cases, we say that respond to me if anyone hears my voice. A person with a hearing impairment can't answer our call because he can't hear us." That Mr. Alper said, "For example, no matter how much I call and ask whether there is anyone hearing my voice, they won't hear my voice." draws attention to the fact that individuals with special needs have difficulty in receiving calls for help.

Findings on difficulties in responding to disasters and emergencies range from having difficulty in escaping from disasters, not making sense of disaster situations, not noticing an approaching disaster and needing help to protect oneself. It was found that individuals with special needs had difficulties in reaching safe areas and moving in disasters and emergencies due to their inadequacies. Mr. Yusuf said, "For example, let's consider an individual with special needs in a wheelchair. In the event of an earthquake, you know, people are trying to escape somewhere. They're trying to hide somewhere, but what would those people do? Where can they hide?" The inability to make sense of the disaster situation experienced by individuals with special needs is another finding regarding the responses to disasters. That Mr. Bilal said, "Now, individuals with mental problems cannot understand much about the disaster." should be evaluated from this aspect. Within the scope of the research, it was found that individuals with special needs could not recognize an approaching danger/disaster due to their inadequacies. Mr. Furkan stated, "Of course, if we start from hearing or visually impaired individuals again, they cannot notice the disaster in the first place as we do. They can't see."

3.3 Recognition of individuals with special needs in disasters and emergencies

In this section, sub-themes of practices of identifying individuals with special needs in disasters and emergencies and difficulties encountered in identifying individuals with special needs were included under the main theme of identifying individuals with special needs.

3.3.1 Practices of recognizing individuals with special needs

It was concluded that the participants resorted to various practices to identify individuals with special needs in disasters and emergencies. One of these practices was to communicate directly with the individuals themselves. It was stated that a dialogue initiated with

the disaster victim offered clues for recognizing various types of disability. For example, Mr. Yusuf stated, “But of course, as we get closer and engage in a one-to-one dialogue, I at least understand what their obstacle or need is.”, which should be evaluated in terms of stating that communication is an essential tool to recognize individuals with special needs. It was found that the victim’s communication efforts, tone of voice and communication style gave various ideas about their disability. In this regard, Mr. Eray said, “If the person cannot communicate with us in the manner of a normal and healthy individual when we contact with him/her, I personally come to this conclusion.” Asking questions to the victims in the disaster area was identified as another practice used to understand a possible type of inadequacy. Mr. Hakan said, “For example, we ask the name of the victim to question whether he is oriented to the event or not. So we ask simple questions like this. You know, if he/she can’t answer these simple questions or if he/she gives abnormal answers, we deduce from these actions that he/she has an extra need.” These words indicated that UMKE personnel ask questions to raise awareness of the possible inability of the victim.

In support of these views of the participants, the findings obtained from the document review indicated that communication with disaster survivors be initiated with simple questions such as ‘How are you? Are you okay?’ Proceed to the consent and treatment process (Researcher’s Diary). When UMKE personnel arrived at the disaster area, it was found that they collected information about the disaster victims from the people around them. Therefore, this finding showed that a possible disability of the victim could be determined by obtaining information from the surrounding people and relatives. Mr. Kaan summarized this situation, “Now, if the person has a relative, we ask his relatives first. They already inform.” His words summarized this situation. It is also possible to detect an inadequacy situation by performing a primary examination on the disaster victim in the disaster area. Mr. Hakan stated, “If there is a physical problem, we can understand it in the primary examination after we reach the case.” Other practices used to recognize individuals with special needs in the disaster area are to examine the signs and devices indicating the disability of the disaster victim and perform identity checks.

Regarding the subject, Mr. Emre stated, “It is a little difficult to understand at first glance. Maybe if he’s using a device or something, or if there’s something obvious, we can learn about it that way. It shows that he is disabled.”, which shows that they detected the disability by checking clues and equipment on the disaster survivor. Ms. Büşra said "If we can access the patient’s identity information, we learn things from the records anyway." This finding indicates that a possible disability can be detected by performing identity checks.

3.3.2 Difficulties in recognizing individuals with special needs

It was revealed that UMKE personnel faced a series of difficulties detecting individuals with special needs. These difficulties are the unconscious behaviors that occur due to the devastating effects of disasters creating a shock effect on individuals with typical development and the lack of practice and knowledge experienced by the participants in identifying individuals with special needs. Mr. Bilal made the following statements regarding the behaviors of disaster victims in a state of shock, which can be confused with the behaviors of individuals with special needs: “For example, in İzmir there was a case where the person was not such a mentally disabled person, but she was taken out fainted and hit on the head. The woman was not quite conscious. Be sure, when such people come out of the wreckage, it is very difficult to distinguish between a healthy citizen and a mentally disabled. They’re

confused because their consciousness was blurred; for example, the lady who came out was talking nonsense to us. Like, 'Why did you come? Who are you?" Supporting the views of Ms. Büşra, it was stated in the document analysis that the victim/patient in shock may experience a decrease in consciousness (Researcher's Diary).

Another area for improvement in recognizing the individuals with special needs in the disaster area was the need for more training and knowledge of the personnel. Ms. Merve said, "Probably when we are trained on this subject, we need to be trained on how to understand it. How can we understand these people, their disabilities? We fall short in that regard." summarizes the situation. Supporting the statements of Ms. Merve Mr. Bilal stated in a telephone conversation after the interview that it is essential to recognize individuals with special needs in disasters and emergencies, that they can detect physical disabilities by seeing them, but that they may experience difficulty in detecting an individual with ASD because they do not receive specialized training. He requested information from the researcher about the general characteristics of individuals with ASD (Researcher's Diary).

3.4 Communication with individuals with special needs

In this section, sub-themes of the main theme of communication with individuals with special needs are listed as choosing alternative ways of communication, adaptations related to communication, and difficulties encountered in communication.

3.4.1 Choosing alternative ways of communication

It was found that the participants resort to alternative communication methods when communicating with individuals whom they realized/learned to have special needs in disasters and emergencies. One of these alternative ways was to get support from institutions or units working in the disaster area. Examples were Health Disaster and Coordination Center (SAKOM) and Psychosocial Support Group. For example, the following words of Mr. Furkan should be evaluated in this respect, "I mean, we continue to intervene in these patients with the support of the Provincial Directorate of Family Social Work Policies, that is, the Psychosocial Support Group, and if there is a staff member who has received training on this subject, with the help of that staff."

In the document review conducted in line with this view of Mr. Furkan, it was stated in the Hospital Disaster and Emergency Preparedness Manual (HAP) that the job description of the Psychosocial Support Unit supervisor is to coordinate the health services provided to disabled individuals (Researcher's Diary). It was found that the participants communicated with the disaster victim, whom they determined/learned to have special needs, by using body language. Mr. Emre reported his communication by using body language via, "I mean, of course, I use hand gestures depending on his situation."

Another alternative communication preference that UMKE personnel applied to communicate with individuals with special needs was to receive support from the families of individuals with special needs. Mr. Osman stated, "We are trying to reach their relatives. When we reach these relatives, we try to find out what they are feeling or what they are thinking.", which describes the contribution families make to communication.

Communicating by touching was another alternative communication choice. Regarding communicating with individuals with special needs by touching, Ms. Büşra said, "I choose to communicate more by touching. You know, this is what I always prefer in cases where I'm involved." made in the statements. Using written communication with individuals with

special needs is an alternative communication method. Mr. Mert reported that he communicated with individuals with special needs who could read and write, through writing through the following statement, "I write if necessary. How are you? Are you okay? We want them to write, too. If such a thing is possible." Using technological devices is the last alternative communication preference used by UMKE personnel to communicate with individuals with special needs in disasters and emergencies. Mr. Yusuf expressed his thoughts on this subject with the following sentences: "You know, with today's technology, phones are now in everyone's pockets. What they can understand is from videos, I mean, from photos."

3.4.2 Adaptations related to communication

It was concluded that UMKE personnel resorted to some communication adaptations such as providing a sense of security, using expressions that were easier to understand, and being friendly while communicating with individuals with special needs. Stating that he first gained the trust of the individuals with special needs he contacted, Mr. Bilal, who stated that he would gain the trust of those with special needs, stating, "First of all, we will introduce ourselves. We will give them trust. Once we feel that the person trusts us, we will start doing some things." Stating that she communicated using clearer and simpler sentences, Ms. Merve said, "When you speak in a professional language like a normal and adult individual, you cannot help that person much. I try to speak a little more in their language in a way that they can understand." This statement shows that healthy communication cannot be established with individuals with special needs by using words in professional language and that more understandable and shorter sentences should be formed. Another communication adaptation that UMKE personnel used when communicating with individuals with special needs was a more friendly communication approach. Mr. Eray showed that he had a more friendly attitude by saying, "When I see an individual with special needs, even on the road, I think this can be a Down syndrome, someone with autism, so I always become more loving, accepting, I don't know."

3.4.3 Difficulties encountered in communication

According to the findings obtained in the study, it was concluded that UMKE personnel had difficulties in communicating with individuals with special needs due to their lack of education and knowledge and their inability to control the aggressive behaviors of some individuals with special needs. Ms. Eylul said, "Even on 112, even when there is no disaster, we have a hard time talking to these individuals, communicating with them, understanding their problems, or having them understand us. So disasters are an extra situation.", which emphasizes the inadequacy of the staff on how to communicate with individuals with special needs. Likewise, Mr. Alper expressed, "How should our natural communication with them be during a disaster? I think there should be training on this subject as well.", which should be considered as a suggestion for the training needs of the personnel in communicating with individuals with special needs. In the document review, the basic and advanced training contents of UMKE personnel were checked. However, it was found that there was no training content on how to communicate with individuals with special needs (Researcher's Diary). As another communication difficulty, it was revealed that individuals with special needs could display aggressive behaviors with the turmoil and panic created by the disaster situation, which made communication with individuals with special

needs difficult. Regarding this topic, Mr. Eray said, “When they experience moments of fear and panic, when they do not feel that confident, they become irritable. They harm their surroundings.”

3.5 Intervention in individuals with special needs

This section has a sub-theme related to the main intervention theme for individuals with special needs: environmental arrangements and adaptations to medical treatment.

3.5.1 Environmental regulations for the medical treatment

It was found that UMKE personnel made environmental arrangements during the response to individuals with special needs in disasters and emergencies. For example, taking more security measures is one of the environmental regulations applied during the intervention to individuals with special needs. Ms. Merve said, “We take a bit more precaution in that matter, meaning that if we insert an IV line, for example, we secure it considering the possibility of dislodgement. Alternatively, we explain to them that we will not cause harm, or if they are truly aggressive or at risk of harm, we secure them to the stretcher so they will not fall. We already secure normal individuals to the stretcher, but we should take slightly more protective measures and precautions when it comes to those individuals."

Another environmental regulation regarding the intervention process for individuals with special needs was keeping family members nearby. Ms. Özge, who stated that individuals with special needs were very anxious during times of disaster and that the presence of family members around them calmed the victims, said, “I try to establish contact with their family. I try to locate their family because their family members are the most professional individuals who can calm them down and understand what they need.” Removing the crowd in the surrounding area is another finding related to environmental regulations. Mr. Yusuf expresses his views: "For example, if a person has a mental disability, they may have difficulties with crowds. In that case, we should take them to a more secluded, isolated space.” This summarizes the removal of the crowd during the intervention.

It was found that some adaptations were used in the intervention for individuals with special needs. Calming the panicked individual with special needs is one of these adaptations. Mr. Hakan expressed his thoughts on this subject as follows: “Look, we will inject a needle now on your arm, but it won’t do any harm. We need to calm them down with suggestions, saying ‘We will get you out of this trouble.’".

4 Discussion

UMKE personnel’s understanding of the concept of individuals with special needs and how they categorize individuals with special needs indicate that this concept covers many conditions and types of disabilities. Subaşı-Yurtçu (2019) explained the concept of individuals with special needs with an umbrella metaphor that includes various types of disabilities and diseases and stated that different disciplines have different perspectives and definitions of individuals with special needs. UMKE personnel are health professionals who provide disaster victims with health and medical rescue services. Therefore, it is thought that it is more appropriate to interpret the findings obtained in terms of disaster and emergencies and health discipline. Participants frequently

associate individuals with special needs with having a diagnosed disability and/or having a chronic health problem. Participants emphasize that individuals have problems functioning due to their diagnoses or health problems. Therefore, participants also associate the concept of individuals with special needs with meeting their daily needs (such as eating, going to the toilet, and moving around) independently. In the Regulation on Special Needs Assessment for Children (2019) published by Türkiye Ministry of Health and the Ministry of Family and Social Policies, the state of being an individual with special needs is expressed as follows: "The child needs different health, education, rehabilitation, devices, orthotics, prostheses, environmental arrangements and other social and economic rights and services than individuals without physical or developmental functional limitations in order to participate equally in social life." Based on the definition of special needs by the institution where the participants work, it can be said that it is consistent for them to associate the concept of an individual with special needs with health problems and types of disability. Although the majority of the participants associate the concept of an individual with special needs with having a diagnosed disability and/or having a chronic health problem, it is seen that some participants also characterize individuals who are shown among disadvantaged groups in society, such as children, the elderly and refugees as individuals with special needs. However, the literature on disasters and emergencies considers the status of having special needs in a broader range. For example, disaster researchers and policymakers characterize children, the elderly, women, minorities, people with disabilities, and refugees as groups more vulnerable to the destructive effects of disasters (Peek and Stough 2010). Kurt (2017) defines being an individual with special needs in the context of disasters and emergencies as individuals who may need additional or different support in areas such as exhibiting appropriate behaviors during disasters and emergencies and meeting their needs afterward, thus drawing attention to a large segment of the society. Kailes and Enders (2007) stated that there is little consensus on who exactly should be included in the category of special needs in disasters and emergencies and that pregnant women, prisoners, homeless people, and individuals without a vehicle should also be considered in the category of special needs in disasters and emergencies. From this point of view, it is possible to say that the redefinition of special needs by the Ministry of Health would be an essential step toward meeting the unique needs of individuals with special needs in disasters and emergencies. Therefore, expanding the perspectives of official institutions on the status of individuals with special needs may enable access to broader layers of society in disaster management and risk reduction efforts.

In the data collected from the participants through the demographic information form within the scope of the research, it is noteworthy that the participants did not receive any education on individuals with special needs. In the semi-structured interviews, the participants frequently stated that they had limited knowledge about the general characteristics of individuals with special needs. Similarly, in the literature, Ruesch (2018), in a study of 339 nurses, found that 39.5% of the participants answered the general questions about the nature of hearing impairment correctly. Urbanowicz et al. (2020) found that only two-thirds (63%) of healthcare professionals providing care to individuals with ASD were knowledgeable about ASD. Although the study participants repeatedly stated that they had limited knowledge about the characteristics of individuals with special needs, they reported their views on the characteristics of individuals with disabilities. These include individuals with hearing impairment who communicate with sign language, individuals with visual impairment who use the Braille alphabet to read printed materials, and individuals with ASD who have higher IQs than their peers. From this point of view, it can be said that the views of

UMKE personnel about the characteristics of individuals with special needs are overgeneralized, superficial, and only related to individuals with disabilities.

On the other hand, these views of the UMKE personnel reflect specific subgroups (total blind, Deaf) of some disability groups (hearing impairment, visual impairment). UMKE personnel reported utilizing online search engines such as "Google" while intervening with individuals with special needs. From this point of view, the existing situation of UMKE personnel regarding health literacy needs to be improved. In the studies examining the health literacy of health professionals in Türkiye, there are also studies emphasizing that the health literacy levels of health professionals need to be improved (Bükecik and Adana 2021; Durmaz et al. 2016). Since there are no documents, websites, or training where UMKE personnel can obtain information on the general characteristics of individuals with special needs, the accuracy and quality of the information that the personnel access through their efforts are also controversial.

On the other hand, it is stated in the literature that knowing the general characteristics of individuals with special needs will facilitate the treatment provided, and the personnel will feel more comfortable (Sowney and Barr 2006). Therefore, UMKE personnel should receive in-service training on the general characteristics of individuals with special needs. The Ministry of Health should provide content such as websites, documents, and books for the personnel to access reliable information on this subject. Thus, the health literacy of UMKE personnel regarding intervention for individuals with special needs in disasters and emergencies can be supported.

Another striking finding was how the participants named individuals with special needs. Although awareness of individuals with special needs has recently increased in Türkiye and inclusive education practices have become widespread, it is seen that the participants use hurtful language, such as deaf, dumb, blind, autistic, and mentally retarded when defining individuals with special needs. Although autistic and deaf express cultural groups, they can carry marginalizing meanings depending on the context in which they are used in Turkish. At this point, UMKE personnel should be supported to use inclusive language that prioritizes the individual. Thus, UMKE personnel's use of a person-first inclusive language while communicating with individuals with special needs and their families/relatives will strengthen positive communication. Therefore, planning training to raise awareness of UMKE personnel on this issue is a necessity rather than a suggestion.

Although the participants stated they could not recognize the general characteristics of individuals with special needs, they expressed their professional experience and knowledge about what individuals with special needs experience in disasters and emergencies. For example, it was concluded that individuals with special needs experience negative emotions such as panic, anxiety, and fear in disasters and emergencies. Although studies on the disaster and emergency experiences of individuals with special needs in Türkiye are limited, similar to our findings, Demiröz-Yıldırım (2023) found that individuals with orthopedic disabilities living in Türkiye experience panic and fear during disasters. Kurt et al. (2021) aimed to determine whether individuals with special needs living in Türkiye are prepared for earthquakes and their needs related to earthquake preparedness. They found that individuals with special needs experience negative emotions such as anxiety, fear, and panic during earthquakes. These negative emotions, such as fear and anxiety and loud and unusual sounds caused by disasters, may cause individuals with autism to show hypersensitivity (Edmonds 2017; Lane et al. 2010). However, it is stated that loud and repetitive disaster announcements in emergencies cause individuals with intellectual disabilities to experience more panic (Scotti et al. 2007). It is stated that it is often difficult for healthcare professionals to manage the problem behaviors that individuals with autism and intellectual

disabilities exhibit toward strangers due to the fear, panic, and chaos caused by disasters (Burke and Cocoman 2020; Urbanowicz et al. 2020). From this point of view, it can be said that UMKE personnel should have a high level of awareness of the negative emotions experienced by individuals with special needs and the difficulties they may cause. Therefore, it can be suggested that in-service training programs in which the disaster experiences of individuals with special needs are presented comprehensively should be organized for UMKE personnel.

Findings on the disaster and emergency experiences of individuals with special needs indicate that individuals with special needs experience a series of difficulties during disaster events. One of these difficulties is related to communication. For example, it is stated that individuals with hearing impairment cannot hear warning messages or alarms in disasters and emergencies (Engelman 2012; Neuhauser et al. 2013). Takayama (2017) stated that during the earthquake in Japan 2011, announcements were not made using sign language. A study examining the experiences of individuals with visual impairment after the earthquakes in New Zealand in 2010 and 2011 concluded that individuals with visual impairment had communication difficulties with the surrounding individuals and authorities (Good et al. 2016). An important finding regarding the difficulties experienced was that individuals with intellectual disability and ASD could not make sense of disasters and emergencies. American Association on Intellectual and Development Disabilities (AAIDD) stated that intellectual disability causes significant limitations in mental functions and adaptive behaviors. In addition, according to Centers for Disease Control and Prevention (CDC), individuals with autism may experience inadequacy in cognitive skills and delays in learning. In parallel, it is emphasized that individuals with intellectual disability and ASD do not know what to do in disasters and emergencies and are unaware of impending dangers (Kurt et al. 2021; Peek and Stough 2010). Another challenge was found in reaching safe places in disasters and emergencies. Existing research points out that especially individuals with physical disabilities face difficulties in moving from the disaster area to safe places (Battle 2014; Van Willigen et al. 2002). For example, Demiröz-Yıldırım (2023) addressed the disaster experiences of orthopedically disabled people in Türkiye. The participants in the study experienced disasters such as earthquakes, floods, fire, hail, and disease. Participants reported difficulties in evacuation during disasters and emergencies. The main difficulties were found to be the closure of escape routes, being left alone, not being able to reach objects and vehicles that enable movement, being on high floors, not being able to reach support networks, not being able to use the evacuation routes of the building and not having alternative evacuation options.

Similarly, visually impaired individuals also face difficulties regarding evacuation (Battle 2014). Therefore, it is reported that visually impaired individuals are more likely to be left behind in emergencies (Sullivan and Häkkinen 2011). Based on these findings, it can be said that the experiences and observations of UMKE personnel regarding individuals with special needs are consistent with national and international literature.

UMKE personnel frequently reported difficulties recognizing individuals with special needs in disasters and emergencies. One of these difficulties is that UMKE personnel do not have sufficient knowledge and awareness to recognize individuals with special needs. In support of this finding, Spassiani et al. (2020) stated that only 28% of emergency nurses in their study know to determine whether a patient has an intellectual disability. On the other hand, Zerbo et al. (2015) concluded that most healthcare professionals do not recognize adult patients with autism. The other difficulty was determined as the shock effect. It is stated that physical and social losses caused by disasters may cause survivors to exhibit extraordinary behaviors. It was concluded that the unconscious behaviors exhibited by the

disaster survivor with post-traumatic shock may be confused with the usual behaviors of individuals with mental disabilities and autism.

On the other hand, failure to recognize individuals with special needs in disasters and emergencies can have severe consequences. For example, in the US earthquake in California in 1994, shelter staff associated the contracting body movements of an individual diagnosed with Cerebral Palsy with a drug overdose, and the individual died because they did not intervene (Kurnaz 2019). This tragic event highlights how important it is for disaster personnel to recognize individuals with special needs. The US state of New Jersey took the official step in this regard. With the 2008 state law, considering the prevalence and importance of autism, professional groups such as police, firefighters, and emergency service technicians needed to be trained in recognizing and responding to autism and hidden disabilities (Kelly and Hassett-Walker 2016). In Türkiye, according to the information obtained from the document review, it was determined that the UMKE basic training program did not have content that would raise awareness about individuals with special needs. In addition, no draft law or official document regulates health and disaster personnel training in areas such as intervention, recognition, and communication with individuals with special needs. For example, in the Türkiye Disaster Risk Reduction Plan 2022—2030 (AFAD 2022), the only action addressing individuals with special needs was to increase the level of disaster awareness of individuals with special needs. The Ministry of Family and Social Services published a National Action Plan on Disability Rights (ASHB 2023). The plan emphasizes the necessity of inclusive planning for disasters and emergencies in line with international standards and realizing the post-disaster rehabilitation process in an accessible and appropriate manner for individuals with special needs. Therefore, in Türkiye Disaster Risk Reduction Plan and the National Action Plan for the Rights of Persons with Disabilities, only general principled recommendations are given regarding individuals with special needs. As pointed out in the international literature, failure to recognize individuals with special needs can cause loss of life. Therefore, we strongly emphasize that official and concrete steps should be taken soon. First of all, it can be suggested that the purpose and scope of recognizing individuals with special needs in disasters and emergencies should be included in the relevant regulations and plans in a clear and obtainable manner, and UMKE personnel should be trained on how to recognize individuals with special needs in disasters and emergencies.

It was found that UMKE personnel had difficulties communicating with individuals with special needs in disasters and emergencies. One of the reasons for the participants' difficulties in communicating with individuals with special needs is the lack of information and training. Most UMKE personnel stated they did not know how to communicate with individuals with special needs. Similarly, in the literature, Burke and Cocoman (2020) concluded that nurses struggle to communicate with individuals with mental disabilities. In Spassiani et al.'s (2020) study, approximately half of the nurses stated that they could not adapt their communication and approaches to individuals with intellectual disabilities. From this point of view, it is thought that training UMKE personnel on how to communicate with individuals with special needs will play an important role in increasing the quality of health services provided in disasters and emergencies with individuals with special needs. In the current study, the other difficulty experienced by the participants in communicating with individuals with special needs was found to be the problem behaviors of individuals with autism and intellectual disabilities. It is stated that approximately 10–15% of children with developmental disabilities have problem behaviors such as aggression and self-harm (Emerson et al. 2001). Kurnaz (2019) states that unusual sounds and communicating with unfamiliar people and environments can be quite challenging for individuals

with ASD. For example, hospital visits can cause fear and problem behaviors in individuals with ASD (Langkamp et al. 2015). Similarly, the literature has reported that healthcare professionals have difficulty managing the problem behaviors of individuals with autism and individuals with intellectual disabilities (Burke and Cocoman 2020; Urbanowicz et al. 2020). Therefore, it can be stated that UMKE personnel should be trained to manage the behavioral problems of individuals with intellectual disabilities and autism.

Although UMKE personnel stated that they had limitations in communicating with individuals with special needs in disasters and emergencies, it was determined that they used various communication adaptations to overcome these limitations. For example, if available, getting help from experts in the disaster area is one of them. Health Disaster Coordination Center (SAKOM) and Psychosocial Support Groups are where UMKE personnel receive support to communicate with individuals with special needs. It is stated that ensuring inter-institutional cooperation in disaster situations is vital for the rapid delivery of resources and support to disaster victims (Leaning and Guha-Sapir 2013). It can be stated that the cooperation of UMKE personnel with other institutions and organizations overlaps with this emphasis. The study participants stated that they resorted to written communication with individuals with special needs who could not communicate by speaking. Similarly, Kurnaz (2019) suggests that written communication should be tried when verbal communication cannot be established with individuals who encounter disasters and emergencies. Communication should be continued in writing if the individual understands the questions directed.

Another finding regarding communication adaptations was to use simple and easy-to-understand sentences. Participants stated that especially individuals with intellectual disabilities cannot understand long sentences or sentences containing professional terms, so clear and straightforward expressions are used when communicating with individuals with intellectual disabilities. Subaşı-Yurtçu (2019) also points out that disaster evacuation instructions should be prepared in a simple and easy-to-understand manner for easier understanding. From this point of view, it can be said that using a simple and easy-to-understand communication language by UMKE personnel positively provides more qualified health services to individuals with special needs. Another finding of the current study is that the participants utilize technology to communicate with individuals with special needs. Participants generally stated that they communicate with individuals with special needs using visual materials via smartphones. Kurnaz (2019) emphasized that using assistive technologies for individuals with special needs in disasters and emergencies provides important benefits to cope with crises and gave examples of technological devices and systems that can be used for individuals with special needs in disasters and emergencies. He explained these under the headings of navigation devices, transportation, voice, and medication support systems. Based on this, it can be said that UMKE personnel tried to communicate with individuals with special needs using technology, but the technology used was limited to the telephone. Therefore, it can be said that it would be helpful to include advanced technological devices in the inventory of UMKE personnel to be used in communicating with individuals with special needs and to organize training on using these devices.

When the adaptations made by the UMKE personnel while communicating with individuals with special needs are examined from a general perspective, it is found that although they generally apply adaptations as suggested in the literature, they also apply practices that may be inconvenient in intervening with individuals with special needs. For example, UMKE personnel said they tried communicating with individuals with special needs through hand gestures, body language, or touch. However, it is stated that individuals

with autism may react to touch due to their extreme sensory sensitivity (Edmonds 2017). Kurnaz (2019) emphasizes that individuals with autism encountered in disasters and emergencies should not be physically controlled or touched. From this point of view, it can be said that UMKE personnel communicating with individuals with autism by touching them may cause undesirable results. This situation strongly emphasizes the need to support UMKE personnel to communicate effectively with individuals with special needs. Therefore, it is thought that it is essential to provide in-service training that supports UMKE personnel in determining communication approaches according to the characteristics of individuals with special needs. In addition, it is emphasized that successful communication is not always possible in environments where health services are provided, and using alternative-supportive communication systems (speech-generating systems, communication boards, pain charts) effectively addresses this limitation (Blackstone and Pressman 2016). From this point of view, it may be recommended to teach the use of alternative and supportive communication systems to UMKE personnel to strengthen communication with individuals with special needs.

The last theme from the research findings concerns intervention for individuals with special needs in disasters and emergencies. It was determined that UMKE personnel resorted to various adaptations while providing medical assistance to individuals with special needs in disasters and emergencies. These adaptations included taking more security measures, keeping individuals with special needs with their relatives, removing the crowd in the vicinity, and giving a sense of trust to individuals with special needs. However, it is seen that the adaptations used do not have content specific to special needs. On the other hand, it can be said that UMKE personnel put forward these adaptations not as a routine practice but individually based on their experience. In support of this finding, when the Regulation on Health Services in Disasters and Emergencies (Ministry of Health 2021) is examined, there is no mention of a practice principle or a routine flow to be followed by health personnel when they encounter individuals with special needs in disasters and emergencies. Therefore, healthcare personnel needs a practice standard to be followed by intervention for individuals with special needs in disasters and emergencies in Türkiye.

5 Conclusions

Medical rescue teams associated individuals with special needs with being different from individuals with typical development and unable to meet their needs independently. It classified them as individuals with medical diagnosis and disadvantaged individuals. It was reported that individuals with special needs experienced negative emotions in disasters and emergencies and faced difficulties resulting from communication, security, and environmental conditions. It was also found that individuals with special needs could be detected by their appearance, communication style, responses to communication efforts, and information received from the immediate environment. It was also revealed that alternative ways and adaptations could be used to communicate with individuals with special needs. It was concluded that medical rescue team personnel need help identifying, communicating, and treating individuals with special needs due to lack of knowledge and training. As emphasized by the participants of the research, it is recommended to organize in-service trainings in medical rescue team to provide more qualified health services to individuals with special needs in disasters and emergencies and to minimize the devastating effects of disasters.

6 Limitations and Recommendations

This study examined the health services provided to individuals with special needs in disasters and emergencies in Türkiye from the perspective of UMKE personnel. In this context, the findings obtained are limited to the perspective of health personnel. Therefore, it may be recommended to examine the situation of providing health services to individuals with special needs in disasters and emergencies from the perspectives of individuals with special needs and their caregivers. On the other hand, comparative multiple case studies that include different stakeholders of the situation (experts, caregivers, and individuals with special needs) will examine the situation in Türkiye from a broader perspective.

Although this study focused on the richness of the data within the framework of the qualitative research paradigm, examining the findings obtained in a larger sample group in the context of Türkiye may be recommended. On the other hand, similar studies to be conducted with UMKE personnel from different regions of Türkiye will serve to understand the current situation better.

This research was not limited to the specific type of disaster/emergency and incapacity. However, it was conducted from a general perspective as it is the first study on the subject in Türkiye. This situation, which can be read as both a limitation and a requirement of the conditions, is a guide for future research in Türkiye. Therefore, it can be suggested that future research should focus on more specific disasters/emergencies (such as fire or earthquake) and groups of individuals with special needs (such as refugees, individuals with ASD, and elderly people).

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