

# Nursing students' views on individuals with disabilities in disaster situations: A Qualitative Study

Çiğdem Müge Hayli<sup>1\*</sup>, Ramazan Karataş<sup>2</sup>, Seockhoon Chung<sup>3</sup>, Erkan Kurnaz<sup>4</sup> and Dilek Demir Kösem<sup>1</sup>

<sup>1</sup>Department of Nursing, Faculty of Health Sciences, Hakkari University, Zeynel Bey Campus, Pınarlar Street, 30001, Hakkari, Turkey. <sup>2</sup>Department of Education for the Visually Impaired, Faculty of Education, Anadolu University, Eskişehir, Turkey. <sup>3</sup>Department of Psychiatry, Asan Medical Center, University of Ulsan College of Medicine, Seoul, Korean. <sup>4</sup>Disability Research Institute, Anadolu University, Eskişehir, Turkey. \*Author for correspondence E-mail: mugehayli@hakkari.edu.tr

**ABSTRACT.** This study qualitatively determines the views of nursing students toward individuals with disabilities in disaster situations. Qualitative data were collected between January 18 and April 30, 2024. The study group consisted of 1st and 2nd class nursing program students at Hakkari University Faculty of Health Sciences in Turkey. To determine the students' views on individuals with disabilities in disaster situations, focus group interviews were conducted; data collection was completed for 35 students, after which data saturation was reached. Sociodemographic data and semi-structured individual interview questions were used to determine the aforementioned views of nursing students. A descriptive/thematic approach was used to analyze the data, and coding and analysis were performed using the MAXQDA qualitative data analysis program. The interviews revealed six main themes: 'Unique Characteristics of Individuals with Disabilities,' 'Self-Efficacy,' 'Social/Emotional/Psychological Attitudes,' 'Communication/ Alternative Communication,' 'Social Factors,' and 'Safety and Treatment.' Disaster situations negatively impact individuals with disabilities. In addition to determining nursing students' views on such individuals during disasters, our results can provide help and support.

**Keywords:** Health; catastrophe; disabled; examination.

Received on August 23, 2024.

Accepted on October 8, 2024.

## Introduction

Disability is defined as the restriction or inability to fulfill the roles expected of individuals owing to gender, age, cultural, and social factors as a result of inability or disability (World Health Organization [WHO], 2010). The United Nations defines disability as 'a reduction or restriction in opportunities for equal participation in life' In addition, disability causes individuals to experience isolation and exclusion as well as recognize the limitations in their lives (Apaydın & Barış, 2021). In this context, disability can be expressed as a social phenomenon other than physical and health-related problems experienced by individuals (Gedik & Toker, 2018).

Individuals with disabilities face many negative situations that prevent their coexistence in society. Negative attitudes toward such individuals greatly affect their lives, especially in disaster situations (Altunhan et al., 2021). The problems experienced by individuals with disabilities in society are not owing to a deficiency in their bodies, but rather owing to social isolation and social pressure (Haegele & Hodge, 2016). To prevent marginalization of such individuals and to ensure social adaptation, negative attitudes in society need to change and support should be provided in disaster situations.

Individuals with disabilities frequently visit health institutions owing to various health problems and communicate with health professionals (Çömez & Altan Sarıkaya, 2017). Emphasized that health personnel are people who most frequently encounter and care for individuals with disabilities; thus, investigating how students in health departments interpret disability in disaster situations is required to change the perception of disability in society (Çalbayram et al., 2018).

This study seeks to qualitatively determine the views of nursing students toward individuals with disabilities in disaster situations.

## Materials and methods

### Research design

Focus group interviews were adopted to qualitatively determine how individuals with disabilities are perceived in disaster situations, while understanding the experiences and opinions of nursing students toward them.

## Participants

Data were collected from 1<sup>st</sup> and 2<sup>nd</sup> year nursing students at Hakkari University Faculty of Health Sciences between January 18 and April 30, 2024 via face-to-face interviews. The participants were selected via criterion sampling, which is a form of purposeful sampling. Criterion sampling is the examination of people, situations, or events that meet the qualifications and criteria established according to the purpose of the research (Yin, 2009). In this context, compliance with the participation criteria was required for participation. Students who agreed to participate voluntarily and those who filled out the informed consent form were included. Students in the Nursing Department of the Faculty of Health Sciences were contacted through course consultancy and invited to focus group discussions, which were completed with a total of 35 students in seven sessions, with five students in each session, after which data saturation was reached.

## Data collection

During the qualitative research process, data and tools from various sources and environments are important for data interpretation (Bogdan & Biklen, 2007). To comprehensively examine the situation in its context, data were collected through semi-structured interviews, document review, and a reflective researcher diary (Merriam, 2009; DeWalt & DeWalt, 2001). Data collection was based on the research questions. The research team prepared a sociodemographic data form (3 questions; gender, age, and class status) based on the literature. Semi-structured individual interview questions were used to determine nursing students' opinions toward individuals with disabilities in disaster situations (a total of 21 questions, including 14 sub-questions). Prior to the study, the appropriateness and understandability of the questions were evaluated by three experts in the field. The participants were coded using the first letters of their first and last names. If the names and surnames of two different participants consisted of the same letters, coding was continued in alphabetical order with numbers such as 1, 2. For example, for two different participants whose first and last names were abbreviated as A.B., these were respectively coded as A. B. 1 and A. B. 2.

## Data analysis

Qualitative data analysis includes organization and preliminary preparation of the data obtained. The reading process consists of a series of closely interconnected steps that include coding data, organizing themes, and organizing, reporting, and interpreting data (Creswell, 2015). In the first step of the data analysis process, the researchers listened to the recorded interviews several times and transcribed them verbatim. Transcripts of interviews with 35 nursing students were combined into a single text, which was read and re-read as a whole to recognize and explore the participants' main ideas. In the second stage, the documents obtained during the data collection process were examined. Semi-structured interviews were analyzed together with each researcher's diary, and the results were transferred to the latter. The researchers compiled and transcribed the semi-structured interviews and document review reports; consequently, they uploaded the analyses to the 2020 version of MAXQADA. The researchers analyzed all data codes. During the coding phase, participants' opinions were recorded and analyzed, and codes were assigned to explain these (Miles et al., 2014). The data analysis process is illustrated in (Figure 1).

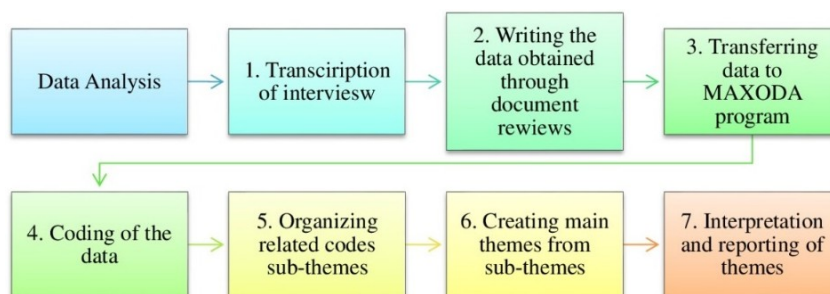


Figure 1. Data analysis process.

## Reliability

To ensure reliability and credibility in case studies, some precautions can be taken regarding internal, external, and construct validity (Glesne, 2015). This content includes data from semi-structured interviews, document reviews, and a reflective researcher diary. This diary reflected challenges encountered in the field,

experiences, and suggestions for research. The researchers regularly addressed the consistency of data obtained through various sources. Video recordings, transcripts, possible dialogues, and documents of the semi-structured interviews were stored in virtual environments. The findings were discussed in light of the literature. In addition, Hakkari University Scientific Research and Publication Ethics Board (IRB: 2024/09-1/Date: 16.01.2024) approved the study. To avoid ethical violations within the scope of the research, the participating students completed an informed consent form. The study was considered ethically appropriate. During the research process, we ensured that the research was valid and reliable.

Findings

This section presents the findings regarding nursing students’ opinions related to individuals with disabilities in disaster situations.

Sociodemographic findings

Of the participants, 19 were men, 14 women, and 47.2% were aged between 25–27. A total of 21 student nurses were in Class 2 (Table 1).

Table 1. Sociodemographic data of nursing students.

Features	n	%
Gender		
Female	14	45.8
Male	19	54.2
Age		
18–20	5	5.3
21–23	12	42.5
25–27	14	47.2
27 and above	4	5
Class Status		
Class 1	14	45.7
Class 2	21	54.3
Total	35	100

Nursing students’ opinions

The themes and sub-themes of nursing students’ views regarding individuals with disabilities in disaster situations are presented in (Figure 2).

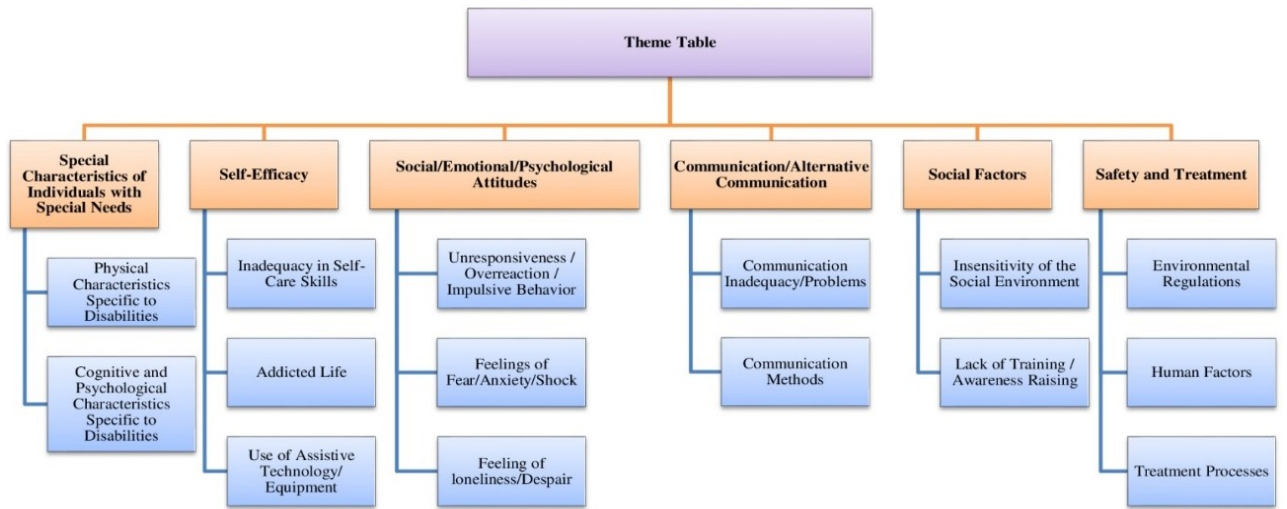


Figure 2. Themes and sub-themes related to the opinions of nursing department students on disabled individuals in disaster situations.

Our research findings can be classified into six main themes: ‘Unique Characteristics of Individuals with Disabilities,’ ‘Self-Efficacy,’ ‘Social/Emotional/Psychological Attitudes,’ ‘Communication/Alternative Communication,’ ‘Social Factors,’ and ‘Safety and Treatment.’

### **Unique characteristics of individuals with disabilities**

The participants’ answers frequently related to ‘physical characteristics specific to disabilities’ and ‘cognitive and psychological characteristics specific to disabilities.’

#### **Physical features specific to disabilities**

The student nurses often stated that the appearance of individuals with disabilities differs from those without such conditions. For example, participant E. T. stated that, “[...] he has a visible disability when viewed from the outside.” Similarly, participant İ. B. stated that, “[...] their disability can be recognized from their wheelchair, if they are visually impaired, from their cane, and if they are hearing impaired, from their hearing aid.” Participant M.R. indicated that “[...] usually, when we approach such people, their physical behavior and movements show us that they have a disability.” Participant Y. A. noted that “[...] it enables us to understand the appearance, movements, and inability of individuals with disabilities.”

#### **Cognitive and psychological features specific to disabilities**

The nursing students frequently mentioned the cognitive and psychological states of people with disabilities. For example, participant M. S. noted that “[...] fear, anxiety, shock, and delayed understanding in disaster situations in individuals with autism spectrum disorder are symptoms that indicate that they are disabled.” Participant C. K. commented that “[...] one of the situations that indicate an obstacle is the behavior of remaining unresponsive or overreacting to events and taking different approaches.” Such a response is considered to be behavior specific to individuals with disabilities. Similarly, participant B. G. indicated that “[...] reacting too much or too little to the event at the time and thinking that it is a game indicates an individual with some form of mental disability.”

#### **Self-efficacy**

Almost all of the participants expressed the opinion that individuals with disabilities have difficulty in meeting their own needs, need constant support, and benefit from assistive technologies. The sub-themes of ‘lack of self-care skills,’ ‘dependent life,’ and ‘use of assistive technology’ emerged from the interviews.

#### **Lack of self-care skills**

Most participants stated that they believed that individuals with disabilities cannot provide care for themselves. Participant B. S. stated that “[...] individuals with disabilities cannot do a job on their own and cannot meet their own needs.” Similarly, participant S. K. said, “[...] individuals with disabilities cannot meet their own needs and are not self-sufficient.” Participant M. R. described the problems in self-care skills of such individuals as “[...] they have difficulty in performing daily living activities on their own.”

#### **Dependent life**

The results established that participants think that individuals with disabilities spend their lives dependent on other people. Participant E.T. 1 stated that “[...] they are individuals who always need us, the people around them.” Similarly, E. T. 2 remarked that such “[...] individuals require extra attention from other people.” Participant H. Y. said, “[...] these individuals can never go anywhere alone; they need support from those around them.” Participant M. K. described the situation of being disabled as “[...] the state of being dependent on someone from birth to death.”

#### **Use of assistive technology/use of equipment**

The student nurses stated that individuals with disabilities often use assistive technologies and equipment to help them adapt to life. For example, participant B. Ö. stated that “[...] such individuals walk with a cane, a wheelchair, and some also have hearing aids.” Participant İ. B. stated that “[...] people with physical disabilities benefit from wheelchairs, people with visual impairment use canes, and hearing aids are available for people with impaired hearing.” Participant Y. A. noted that “[...] individuals who are visually impaired usually wear glasses and have canes. The reliefs on the roads are also for them.”

### **Social/emotional/psychological attitudes**

The participants frequently expressed strong opinions about the social/emotional/psychological attitude of individuals with disabilities. The responses can be further examined under the subheadings of 'lack of reaction/overreaction/impulsive behaviors,' 'feeling of fear/anxiety/shock,' and 'feeling of loneliness/helplessness.'

#### **Lack of reaction/overreaction/impulsive behaviors**

The participants expressed relatively strong opinions regarding the idea that individuals with disabilities may exhibit impulsive behavior by showing a lack of reaction or overreacting. For example, participant L. Ç. commented that "[...] owing to their extreme sensitivity, individuals with disabilities are much more affected by disaster situations than those without such conditions." Similarly, participant C. K. stated that "[...] the reactions of individuals with disabilities may not be healthy in earthquakes and similar situations." Participant N. H. Ş. commented that "[...] they exhibit extremely impulsive movements and behaviors in times of disaster."

#### **Feeling of fear/anxiety/shock**

One of the sub-themes most frequently cited by participants in terms of disability and disasters is the idea that a feeling of fear/anxiety/shock will arise. A. Ş. remarked that "[...] since individuals with disabilities cannot think clearly, they do not know what to do in the case of a disaster, and as a result, they begin to feel more fear and anxiety." Participant M. S. similarly stated, "[...] the feelings of fear, anxiety, and shock they display during the disaster are proof that those friends are disabled individuals." Participant F. T. also stated that "[...] their anxiety level is quite high because they do not know what to do."

#### **Feelings of loneliness/helplessness**

Participants frequently mentioned the feelings of loneliness and helplessness experienced by individuals with disabilities both in daily life and in disaster situations. Participant S. K. stated that "[...] the main reason such individuals experience intense feelings of loneliness and helplessness is their disability and that owing to this, they always prefer to be alone, especially individuals with ASD. Furthermore, they cannot get the necessary help from other people." Participant S. E. commented that "[...] some individuals with disabilities are quite indifferent to living objects and such individuals often tend to be alone." Participant A. D. emphasized that everyone has to deal with their own situation during disasters and that, "[...] unfortunately, since everyone is worried about their own problems during disasters, individuals with disabilities are left very alone and helpless."

### **Communication/alternative communication**

Regarding communication with individuals with disabilities both during disasters and in daily life, the sub-themes of 'communication impairment/problems' and 'communication methods' emerged.

#### **Communication impairment/problems**

According to the participants, some individuals with disabilities highlight that they experience difficulties in interpersonal communication owing to the impact of their disability on cognitive processes, and some owing to its physical effects. For example, participant C. A. stated that "[...] among individuals with disabilities, some cannot establish interpersonal communication." Similarly, participant F. Ç. commented that "[...] individuals with disabilities reveal themselves by their behavior of not communicating during disasters." According to participant M. K., "[...] individuals with disabilities have difficulties in communication and socialization. Moreover, their lack of ability to focus is the main reason they have problems with their communication skills."

#### **Communication methods**

Participants' responses about communicating with individuals with disabilities in case of disaster generally included those specific to disabilities, and often focused on individuals with hearing and visual impairments. Participant E. Y. said, "[...] if I am at the scene of a disaster, I communicate with a blind person with disabilities by speaking." They also explained that "[...] if I come across an individual who cannot hear, I prefer to interact with hand signals." Similarly, participant E. T. 2 stated that "[...] if the person with disabilities I encounter during a disaster is visually impaired, I use my voice more, and if they are hearing impaired, I use hand gestures and body language." Some participants also mentioned orthopedic impairment

in their answers. For example, participant Y.A. indicated that “[...] I communicate with a person who is blind by talking and giving directions during a disaster. I interact with a person who is hearing impaired with my gestures and facial expressions. I move the person with physical disabilities with the help of their chair, and if necessary, I carry them after reassuring them.”

### **Social factors**

Another reason for the problems that individuals with disabilities face during and after a disaster concerns the society in which they live. The student nurses’ responses under this main theme can be examined under the sub-themes of ‘insensitivity in the social environment’ and ‘lack of education/awareness.’

#### **Insensitivity in the social environment**

The attitudes of other members of society toward people with disabilities is also a prominent topic in this study. For example, participant F. Ç. highlighted that “[...] both in daily life and in disaster situations, members of society do not display understanding and empathy toward individuals with disabilities.” Participant M. S. argued that “[...] we should not be prejudiced against individuals with disabilities; we should approach their words and actions with respect and exhibit empathetic behavior.” In addition, participant R. G. stated that “[...] people with disabilities should be given more attention, care, tolerance, and respect in disaster situations.”

#### **Lack of education/awareness**

The participants frequently mentioned that the public has insufficient knowledge about individuals with disabilities. Participant C. K. said, “[...] the public should be aware of individuals with disabilities, empathy studies should be carried out, and how to approach and interact with individuals with disabilities should be highlighted.” Participant B. G. stated that “[...] people are human in every way; there should be no discrimination between them, and society should be made aware of this issue.” Regarding the approach to individuals with disabilities in disaster situations, participant H. B. suggested that “[...] seminar-like training can be provided to raise public awareness about what to do to protect and protect individuals with disabilities in disaster situations such as earthquakes.”

### **Safety and treatment**

Most the participants frequently mentioned safety before and during disasters and treatment after them. The sub-themes ‘environmental regulations,’ ‘human factors,’ and ‘treatment processes’ were identified.

#### **Environmental regulations**

Regarding the pre- and post-disaster period of individuals with disabilities, nursing students frequently mentioned environmental (physical) regulations. For example, regarding pre-disaster environmental regulations, participant M. Y. said that “[...] in some of the buildings constructed in our country, an area suitable for the use of individuals with disabilities during the disaster needs to be created.” Similarly, participant İ. E. noted that “[...] for example, individuals with physical disabilities cannot use the stairs at building entrances. Therefore, it is important for access ramps to be installed in buildings.” Regarding post-disaster environmental regulations, participant B. S. suggested, “[...] for the safety of individuals with visual impairments, sharp objects should be eliminated from the environment after the disaster. These individuals should be taken to tents.”

#### **Human factors**

The participants mentioned the situations experienced by individuals with disabilities, especially regarding security, both individually and socially. For example, participant Y. Y. stated that “[...] individuals with disabilities can be both uninformed and unsuccessful in terms of protecting themselves and ensuring their own safety in disasters such as earthquakes.” Supporting this statement, participant L. Ç. noted that “[...] these individuals do not have the skills to ensure their own safety against disasters.” Participant C. K. said, “[...] the safety of individuals with disabilities in disaster situations is endangered as a result of the negligence and lack of precautions taken by members of society.” Regarding the approach of the relatives of individuals with disabilities at the time of disaster, participant F. T. stated that “[...] unfortunately, in times of disaster, relatives of individuals with disabilities outside the nuclear family do not feel the need to save them and can just leave them.”

### Treatment processes

As the participants were all nursing students, they regularly mentioned post-disaster treatment processes. In this regard, participant B. G. said, "I give information about the treatment I will do just before starting it. For example, if I need to open an intravenous line, I explain this to them appropriately. For example, I use visuals when explaining to a person who is hearing impaired." Similarly, participant C. A. explained that "[...] after making the environmental regulations appropriate, I explain the treatment I am going to administer to the individual, obtain their approval, and start the treatment." Participant İ. B. noted that "[...] first of all, I try to learn about their disability and the medications they use regularly and I start the treatment with those medications." Participant M. K. said, "[...] before resorting to pharmacological and non-pharmacological methods, I try to determine what kind of disability the individual has. After identifying the issue, I calm and relax the individual and perform the procedure." By contrast, participant Y. A. said, "I apply pharmacological or non-drug treatment. If the person is afraid of me, I will approach them together with their family."

### Discussion

The results of this study demonstrated that students' perceptions of the unique characteristics of individuals with disabilities in disaster situations frequently included 'physical characteristics specific to disabilities' and 'cognitive and psychological characteristics specific to disabilities.' Participants stated that individuals with disabilities have a disability that is visible from the outside and that they experience situations such as stress, fear, and anxiety (Stough et al., 2016) stated that individuals' disability status negatively affects their long-term recovery after a disaster. A study on evacuation preparation via a university fire drill established that individuals with some form of intellectual disability would experience anxiety owing to their disability (Hostetter et. al., 2024). Conducted a study on emergency preparedness, including the perceptions and experiences of people with disabilities (Finkelstein & Finkelstein, 2020). Our results are similar to those of in that individuals with disabilities experience fear and anxiety in extraordinary situations owing to their disability (Holloway, 2001).

Under the umbrella of the second main theme, self-efficacy, three sub-themes emerged: 'lack of self-care skills,' 'dependent life,' and 'use of assistive technology.' Some people with disabilities cannot perform self-care skills on their own, and some live their lives by using assistive devices. Investigated representation of disasters in school textbooks for children with mental disabilities in Iran (Seddighi et al., 2021). Their qualitative content analysis revealed that in extraordinary situations, people with disabilities are dependent on another person. Another study concluded that individuals with disabilities, especially children with mental disabilities, are not left alone in disaster situations and the caregiver is always with them, making them feel safe (Mızrak & Aslan, 2020).

The main theme of '*social/emotional/psychological attitudes*' included sub-themes such as 'lack of reaction/overreaction/impulsive behavior,' 'feeling of fear/anxiety/shock,' and 'feeling of loneliness/helplessness.' Expressions such as acting angry, shock, fear of what to do, and being left alone owing to a disability were recorded in the main and sub-themes. Jang and Han (2021) examined the inclusion of children with disabilities in disaster management and established that more than half were aggressive in disaster situations, experienced fear, and felt isolated. Investigated the disaster preparedness status of university students in Bangladesh (Hasan et al., 2022), and found that regarding individuals with disabilities, students experienced feeling inadequate, fear of what to do, fear of what will happen, and fear of not knowing. Valuated international students' vulnerability to hurricanes. In the negative situations identified in the University of Florida case study, individuals with disabilities were particularly anxious, fearful, or felt a sense of panic, and became aggressive after such experiences (Abukhalaf et al., 2022).

'Communication impairment/problems' and 'communication methods' were included under the main theme of 'communication/alternative communication' both in daily life and in disaster situations. People with disabilities experience delays in communicating, inability to maintain communication, and problems in communicating owing to their disability. Regarding communication methods, students stated that if they are hearing impaired, they use body and sign language, and if they are blind, they communicate by touch. This may suggest that it will be beneficial for individuals with disabilities to be supported in every aspect in the event of a disaster. Iwakuma et al. (2023) mixed-method study on changes in Japanese university students' perceptions of disability concluded that university students experienced communication problems with individuals with disabilities, who experienced a lack of support and assistance in natural disaster situations. Yoosefi et al. (2020) qualitatively investigated the experiences of women in rural areas who encountered

damage caused by the earthquake in Iran. Statements received from women in a qualitative study demonstrated that families with disabled members in their families could not contact them, but they communicated more quickly with individuals other than intellectual disabled individuals and provided their support. Their research established that individuals with intellectual disabilities experienced delays in receiving psychological and physical assistance owing to their lack of communication during the earthquake. Exploratory analysis of the obstacles to effective post-disaster rescue determined that the problems experienced by individuals with disabilities were owing to a lack of communication (Rouhanizadeh et al., 2020).

The fifth main theme of *social factors* includes sub-themes such as ‘insensitivity in the social environment’ and ‘lack of education/awareness-raising.’ Nursing students stated that lack of empathy and respect for individuals with disabilities were issues, and that relevant information and training should be provided to address this. Pertiwi et al. (2022) also stated that community-based disaster risk reduction is a key factor. A study of people with disabilities as actors revealed a lack of respect, sensitivity, and empathy toward such individuals in society; this aligns with our findings. Gartrell et al. (2020) study on disaster experiences of women with disabilities in Cambodia established obstacles and opportunities for reducing disaster risk involving disability. Furthermore, they documented a lack of information and training about how to care for individuals with disabilities in disaster situations; they also demonstrated the vulnerabilities of individuals with disabilities during disasters. Based on a case study on Khyber Pakhtunkhwa, Pakistan investigated the understanding of disaster risk management regarding emergency preparedness in schools (Shah et al., 2020). Their results indicated that the improvements for individuals with disabilities were insufficient in the specified period, and that measures should be increased within the scope of disasters that may occur.

Regarding the last main theme of our research, ‘Safety and Treatment’, three sub-themes were identified: ‘environmental regulations,’ ‘human factors’ and ‘treatment processes.’ Nursing students stated that the infrastructure for people with disabilities is inadequate regarding environmental regulations. In line with study on disaster preparedness education, this finding highlights the importance of construction curriculum requirements to increase students’ preparedness for pre- and post-disaster activities, and that structures should be configured for individuals with disabilities, especially in terms of physical (environmental) studies (Nipa et al., 2020). In an empirical study of people with disabilities’ ability to cope with disasters, Ton et al., (2020) found that accessibility should be structured for all disability groups in the event of a sudden emergency, and measures must be taken to reduce the negative effects of human factors such as the inability to protect themselves. The nursing students also highlighted that in the event of a disaster, if communication can be established, asking about the medications used, determining the disability status before treatment, and applying pharmacological or non-pharmacological methods when necessary are important. Examined rehabilitation of disabled survivors of disasters through skill development and strengthening to reduce disaster risk (Bhadra, 2020). Their findings emphasized that it is important to know and define the disabled individual, and that medical practices performed by health professionals will be beneficial in terms of mobilization. This finding is in line with the answers given by the nursing students. Davis and Phillips (2009) conducted a study on effective emergency management and suggested improvements for communities and people with disabilities. Elisala et al. (2020) study on the disaster preparedness, perceptions, and experiences of people with disabilities in Tuvalu include recognizing disabled individuals, negative. These studies also discussed what approaches and methods should be followed and the importance of applying treatments for medical disabilities.

## Conclusion

The interviews with nursing students revealed the following six main themes: ‘Unique Characteristics of Individuals with Disabilities,’ ‘Self-Efficacy,’ ‘Social/Emotional/Psychological Attitudes,’ ‘Communication/Alternative Communication,’ ‘Social Factors’ and ‘Safety and Treatment.’ Nursing students’ awareness of opinions, information, and support for individuals with disabilities in disaster situations should be increased. Moreover, seminars and conferences for students should be organized and further research should be conducted, specifically with larger samples that are highly representative of society.

## Limitations

The study included 1st and 2nd year students studying at Hakkari University, Faculty of Health Sciences, Department of Nursing. Accordingly, the can only be generalized to the sample group.



## References

- Abukhala, A. H. I., von Meding, J., Dooling, J. R., & Abusal, D. M. (2022). Assessing international students' vulnerability to hurricanes: University of Florida case study. *International Journal of Disaster Risk Reduction*, 71, 102812. <https://doi.org/10.1016/j.ijdrr.2022.102812>
- Altunhan, A., Bayer, R., & Aak, M. Z. (2021). Examination of Mardin Artuklu University Students' attitudes towards disabled people. *anakkale Onsekiz Mart University Journal of Sports*, 4(1), 61–70.
- Apaydın, R., & Barış, İ. (2021). Evaluation of the attitude towards disabled individuals in society in the context of healthcare professionals. *Beyond the Horizon Science Journal*, 21(1), 22–39.
- Bhadra, S. (2020). Rehabilitation of the disabled survivors of disasters, through capability enhancement and empowerment for disaster risk reduction: A proposed model. *Purvottaran*, 282.
- Bogdan, R. C., & Biklen, S. K. (2007). *Qualitative research for education: An introduction to theory and methods* (5th ed.). Allyn and Bacon.
- albayram, N. ., Aker, M. N., Akkuş, B., Durmuş, F. K., & Tutar, S. (2018). Attitudes of faculty of health sciences students towards disabled people. *Ankara Journal of Health Sciences*, 7(1), 30–40.
- ömez, T., & Altan Sarıkaya, N. (2017). Nursing faculty students' thoughts and practices regarding stigmatizing individuals with disabilities. *G.O.P. Taksim E.A.H. Nursing Academic Research Journal*, 3(3), 145–152. <https://doi.org/10.5222/jaren.2017.145>
- Creswell, J. W. (2015). *A concise introduction to mixed method research* (2nd ed.). Sage.
- Davis, E., & Phillips, B. (2009). *Effective emergency management: making improvements for communities and people with disabilities*. National Council on Disability.
- DeWalt, K. M., & DeWalt, B. R. (2001). *Participant observation: A guide for fieldworkers* (2nd ed.). AltaMira Press.
- Elisala, N., Turagabeci, A., Mohammadnezhad, M., & Mangum, T. (2020). Exploring persons with disabilities preparedness, perceptions and experiences of disasters in tuvalu. *Plos One*, 15(10), e0241180. <https://doi.org/10.1371/journal.pone.0241180>
- Finkelstein, A., & Finkelstein, I. (2020). Emergency preparedness–The perceptions and Experiences of People with Disabilities. *Disability and Rehabilitation*, 42(14), 2056–2066. <https://doi.org/10.1080/09638288.2018.1550686>
- Gartrell, A., Calgaro, E., Goddard, G., & Saorath, N. (2020). Disaster experiences of women with disabilities: barriers and opportunities for disability inclusive disaster risk reduction in Cambodia. *Global Environmental Change*, 64, 102134. <https://doi.org/10.1016/j.gloenvcha.2020.102134>
- Gedik, Z., & Toker, H. (2018). University students' attitudes towards disabled individuals and their social desirability levels. *Journal of Higher Education and Science*, (1), 111–116. <https://doi.org/10.5961/jhes.2018.253>
- Glesne, C. (2014). *Becoming qualitative researchers: An introduction* (5th ed.). Pearson.
- Haegele, J. A., & Hodge, S. (2016). Disability discourse: overview and critiques of the medical and social models. *Quest*, 68(2), 193–206. <https://doi.org/10.1080/00336297.2016.1143849>
- Hasan, M. K., Moriom, M., Shuprio, S. I. M., Younos, T. B., & Chowdhury, M. A. (2022). Exploring disaster preparedness of students at University in Bangladesh. *Natural Hazards*, 111(1), 817–849. <https://doi.org/10.3390/10.1007/s11069-021-05080-2>
- Holloway, S. (2001). The experience of higher education from the perspective of disabled students. *Disability & Society*, 16(4), 597–615. <https://doi.org/10.1080/09687590120059568>
- Hostetter, H., Naser, M. Z., Randall, K., & Murray-Tuite, P. (2024). Evacuation preparedness and intellectual disability: insights from a university fire drill. *Journal of Building Engineering*, 84, 108578. <https://doi.org/10.1016/j.jobbe.2024.108578>
- Iwakuma, M., Miyamoto, K., & Murata, J. (2023). Changes in perceptions of japanese university students toward disability: A mixed methods study. *International Journal of Disability, Development and Education*, 70(2), 156–168. <https://doi.org/10.1080/1034912X.2020.1865521>
- Jang, J. H., & Ha, K. M. (2021). Inclusion of children with disabilities in disaster management. *Children*, 8(7), 581. <https://doi.org/10.3390/children8070581>

- Merriam, S. B. (2009). *Qualitative research: A guide to design and implementation* (2nd ed.). Jossey-Bass.
- Miles, M. B., Huberman, A. M., & Saldana, J. (2014). *Qualitative data analysis a method sourcebook* (3rd ed.). Sage.
- Mızrak, S., & Aslan, R. (2020). Disaster Risk perception of university students. *Risk, Hazards & Crisis in Public Policy*, 11(4), 411–433. <https://doi.org/10.1002/rhc3.12202>
- Nipa, T. J., Kermanshachi, S., Patel, R., & Tafazzoli, M. (2020). Disaster preparedness education: construction curriculum requirements to increase students' preparedness in pre-and post-disaster activities. In *Associated Schools of Construction (ASC) International Conference* (pp. 142–131).
- Pertiwi, P., Llewellyn, G., & Villeneuve, M. (2022). People with Disabilities as key actors in community-based disaster risk reduction. *Disability & Society*, 34(9-10), 1419–1444. <https://doi.org/10.1080/09687599.2019.1584092>
- Rouhanizadeh, B., Kermanshachi, S., & Nipa, T. J. (2020). Exploratory analysis of barriers to effective post-disaster recovery. *International Journal of Disaster Risk Reduction*, 50, 101735. <https://doi.org/10.1016/j.ijdr.2020.101735>
- Seddighi, H., Sajjadi, H., Yousefzadeh, S., Lopez, M. L., Vameghi, M., Rafiey, H., & Khankeh, H. R. (2021). Representation of disasters in school textbooks for children with intellectual disabilities in iran: a qualitative content analysis. *International Journal of Disaster Risk Reduction*, 53, 101987. <https://doi.org/10.1016/j.ijdr.2020.101987>
- Shah, A. A., Gong, Z., Pal, I., Sun, R., Ullah, W., & Wani, G. F. (2020). Disaster risk management insight on school emergency preparedness—a case study of Khyber Pakhtunkhwa, Pakistan. *International Journal of Disaster Risk Reduction*, 51, 101805. <https://doi.org/10.1016/j.ijdr.2020.101805>
- Stough, L. M., Sharp, A. N., Resch, J. A., Decker, C., & Wilker, N. (2016). Barriers to the long-term recovery of individuals with disabilities following a disaster. *Disasters*, 40(3), 387–410. <https://doi.org/10.1111/disa.12161>
- Ton, K. T., Gaillard, J. C., Adamson, C., Akgungor, C., & Ho, H. T. (2020). An empirical exploration of the capabilities of people with disabilities in coping with disasters. *International Journal of Disaster Risk Science*, 11, 602–614. <https://doi.org/10.1007/s13753-020-00287-6>
- World Health Organization [WHO]. (2010). *International Classification of Impairments, Disabilities and Handicaps: A manual of classification relating to the consequences of disease, published in accordance with Resolution WHA29. 35 of the Twenty-ninth World Health Assembly*. World Health Organization.
- Yin, R. K. (2009). *Case study research: Design and methods* (4th ed.). Sage.
- Yoosefi Lebni, J., Khorami, F., Ebadi Fard Azar, F., Khosravi, B., Safari, H., & Ziapour, A. (2020). Experiences of rural women with damages resulting from an Earthquake in Iran: A qualitative study. *BMC Public Health*, 20, 1–13. <https://doi.org/10.1186/s12889-020-08752-z>