

## Evaluation of Interventions for Individuals with Special Needs After an Earthquake: Teacher Perspective

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**Abstract:** Türkiye is in a geography where many large and small-scale earthquakes occur due to its location in the earthquake zone. The Kahramanmaraş earthquake on February 6, 2023, and the Hatay earthquake on February 20, 2023, affected individuals with special needs and their families as well as individuals with typical development. This research aims to determine the experiences of experts who meet/support individuals with special needs and their families in the earthquake zone or any province and their recommendations regarding future disasters. Therefore, focus group interviews were conducted with five special education teachers and a psychological counsellor. According to the results of the research, four themes were reached: the needs, the difficulties, the positive aspects of interventions for individuals with special needs after the earthquake and recommendations for a future earthquake. The results obtained from the findings of this study were discussed together with previous studies in the literature and suggestions were made regarding before, during and after disasters.

**Keywords:** Earthquake, Türkiye, Disability, Disaster, Teachers, Special Education Teacher, Focus Group Interview, Individuals with Special Needs

### 1. Introduction

Earthquakes are natural disasters that cause serious consequences in many regions of the world. Earthquakes often present traumatic experiences to living beings and affect their lives (Turcotte, 1991). Türkiye, located in the zone of Northern Anatolia, Eastern Anatolia and Western Anatolia fault lines, is a country that has experienced many earthquakes. According to the report of the Strategy and Budget Directorate of the Presidency of the Republic of Türkiye, on February 6, 2023, two earthquakes with magnitudes Mw7.7 (focal depth = 8.6km) and Mw7.6 (focal depth = 7km) occurred at 04:17 and 13:24, with the epicentre in Pazarcık and Elbistan districts of Kahramanmaraş. On February 20, 2023, at 20:04 Türkiye time, an earthquake of Mw6.4 magnitude occurred with the epicentre in Hatay Yayladağı. These earthquakes caused great destruction in 11 provinces in total. As a result of the earthquakes, more than 48.000 people lost their lives, more than half a million buildings were damaged, communication and energy infrastructure were damaged, and significant financial losses occurred. In addition, the report includes the number of individuals with special needs registered in the earthquake zone; the total number is 2,511,950, including 1,414,643 men and 1,097,307 women. The number of people with severe disabilities and special needs is 775,012. In the region, 5,252 people receive services in 66 disabled and elderly care centres affiliated with the Ministry of Family and Social Services. Considering the numbers, there are a significant number of individuals with special needs and their families affected by earthquakes, as well as experts working with individuals with special needs. Disaster experiences of individuals with special needs may be more severe and longer lasting than those of populations without special needs. When disasters occur, individuals with special needs face inequalities in accessing housing or assistance, and their educational processes become more difficult (Alexander, 2015).

According to the report of Ankara Yıldırım Beyazıt University, Migration Policy and Research Center (2023), the size of the population leaving the region after the earthquake is larger than the human mobility subject to internal migration within Türkiye throughout 2021. It was determined that approximately half of the population of Adıyaman and more than one-third of the population of Hatay, Kahramanmaraş and Malatya were displaced. With this wave of migration, there are individuals with special needs and their families who migrate to other cities, as well as individuals with special needs and their families who stay in the earthquake zone and continue their lives in this region. While there are special education teachers who work voluntarily with individuals with special needs in the cities of migration, there are also special education teachers and counsellors assigned to children with special needs and their families in the earthquake region by the Ministry of National Education and the Ministry of Family and Social Policies. In addition to the assigned teachers, there are also special education teachers, counsellors and subject teachers who provide education to individuals with special needs and support families in the earthquake zone voluntarily (Özer, 2023). The purpose of this study is to specify the experiences of experts who meet/support individuals with special needs and their families in the earthquake zone or any province and their recommendations regarding future disasters. For this purpose, in the first six months after the earthquake, teachers working with individuals with special needs or their families in the earthquake region or in the provinces where individuals with special needs migrated were contacted. In addition, the research conducted in Türkiye and the world regarding individuals with special needs and disasters was considered. According to the studies conducted in Türkiye, spatial planning for individuals with special needs during the disaster process (Orhan & Keskinok, 2019), the safety of individuals with special needs in disasters and the importance of dogs in reducing disaster damages (Bıçkin, 2020), disaster management model for earthquakes sensitive to individuals with disabilities (Türk, 2022), safety of individuals with special needs during an earthquake (Pakalın & Mersin, 2023), use of geographical information systems and network analysis methods in access solutions for individuals with disabilities (Tün et al., 2019), disaster challenges for individuals with special needs and their parents: 2011 Van Earthquake example (Bilik & Akdağ, 2023), determination of the intervention process of the national medical rescue team (UMKE) for individuals with special needs in disasters and emergencies (Gönen, 2022), the effectiveness of video model on teaching earthquake safety skills to individuals with mental disabilities (Musaoğlu, 2022), the effectiveness of video modeling in teaching earthquake and postearthquake evacuation safety skills for children with autism (Kurt et al., 2024) are included. Moreover, the international studies were about the participation and quality of life of individuals with physical disabilities due to earthquakes (Nunnerley et al., 2015), investigation of the abilities of individuals with special needs to cope with disasters (Ton et al., 2020), preparation and intervention for individuals with special needs in times of disaster after the great East Japan earthquake and difficulties encountered in relief efforts (Tatsuki, 2012), changes in the social relations of individuals with disabilities displaced by disasters (Stough et al., 2017), disability in post-earthquake Haiti: prevalence and inequality in access to services (Danquah et al., 2015), disability and disaster management in New Zealand: examining online media messages (Hay & Pascoe, 2019). When the previous studies are examined, it is seen that they are review studies and designed as fact-finding and suggestions. However, there is no study on the experiences of special education teachers who provide support to individuals with special needs and their families in the earthquake zone after a disaster or earthquake.

This study aims to determine the experiences of teachers who meet/support individuals with special needs and their families in the earthquake zone or any province and their recommendations regarding future disasters. Therefore, the following questions were sought:

1. What are the needs that teachers observe when providing support to individuals with special needs and their families affected by the earthquake?

2. What kind of support did the teachers provide and with whom did they collaborate in the process of meeting the needs?

3. What difficulties did teachers encounter while working with individuals with special needs and their families in the post-earthquake period?

4. What are the good practices observed by teachers when working with individuals with special needs and their families in the post-earthquake period?

5. What kind of experiences did teachers working with individuals with special needs and their families gain in the post-earthquake period?

6. What kind of professional support did teachers need during their work with individuals and families with special needs?

7. What kind of work do teachers think should be planned with individuals with special needs and their families before and after the disaster?

## 2. Method

In this section, information about the research design, participants, how the data were obtained, how the data were analysed and ethical issues are detailed.

### 2.1. Research model

This research, which aims to determine the experiences of experts who meet/support individuals with special needs and their families in the earthquake region or any province and their suggestions regarding future disasters, was designed according to the phenomenology model, a qualitative research method. Phenomenological research design is widely used as one of the qualitative research methods that aims to relate people's perspectives, perceptions and experiences between phenomena and reveals how participants perceive, define and feel the shared experience (Patton, 2002). In this context, the research was conducted with a focus group interview to discuss teachers' experiences in detail and multi-dimensionally.

### 2.2. Participants

In this research, a focus group interview was held with six teachers who work in the field of special education, had a bachelor's degree in special education, and had a device and internet connection to conduct online interviews. The names of the participants were coded based on the initials of their names. Information about teachers is given in Table 1.

**Table 1**

*Demographic Information of Teachers*

Participants	Gender	Profession
Participant V.	Male	Special Education Teacher
Participant F.	Male	Special Education Teacher
Participant M.	Male	Guidance and Psychological Counselling
Participant Ö.	Female	Special Education Teacher
Participant E.	Female	Special Education Teacher
Participant S.	Female	Special Education Teacher

Five of the teachers are special education teachers while one of them is a guidance and psychological counsellor. All of the teachers temporarily volunteered as teachers in the post-earthquake period.

### **2.3. Data collection and analysis**

The research was designed according to the phenomenological model, which is one of the qualitative research methods. The reason for choosing this model is that it focuses on the experiences of individuals. This research aims to interpret and discuss the experiences of teachers assigned to the earthquake zone. In this direction, it was aimed to examine the experiences of teachers in depth in an interactive way through focus group interviews. One of the techniques frequently used in Qualitative Research is Focus Group Discussions, which are group discussions in which a subject that is of interest to the researcher and under his guidance is examined by a group. In focus group interviews, the answers of the participants emerge through their interactions with each other. Focus group interviews emerge as a preferred research technique in different fields, with many features such as revealing interactions between people and allowing in-depth data to be obtained (Sevim, 2008). The interview questions to be used in the focus group interviews were prepared by the researchers and the opinions of three experts with doctoral degrees working in the field of special education were obtained. Following expert opinions, necessary edits were made, and the questions were finalized. To determine the participants in the research, special education teachers assigned to the earthquake region were interviewed and information was given about the content of the research. Teachers who wanted to participate in the research were contacted and the interview time was determined. The meeting was held online via Zoom application. Before the interview, information was given about the purpose and content of the study and participation approval was obtained for participation in the study. The teachers participating in the research were informed again about the purpose and content of the research at the beginning of the interview, they were told the interviews would be recorded and their names would be kept confidential.

After the focus group meeting, the recordings were transcribed without any changes to the participants' conversations. The transcripts were listened to and checked by an expert with a PhD degree in the field, and it was requested to examine whether there was a match between the voice recordings and the transcription. Based on the investigation, it was observed that there was no discrepancy. Following this process, the interview data was analyzed. Content analysis technique was used in the analysis of the data obtained from the interview. In the analysis, the processes of coding the data, reaching themes from the codes, and rearranging and defining the obtained data according to codes and themes were carried out. As a result of the analysis, four themes and subthemes were reached.

### **2.4. Validity and reliability**

The themes and sub-themes obtained from a focus group interview were re-examined independently by an expert with a PhD in special education. After the review, the themes were reviewed by the experts and the researchers together and the inter-coder reliability compliance percentage was determined. The formula suggested by Miles et al. (2014) was used to calculate inter-coder reliability. Inter-coder reliability was found to be 95%.

### **2.5. Ethics issues**

An Ethics Committee Approval was obtained from the Istanbul Kültür University Ethics Committee for this research, which aims to determine the experiences of experts who meet/support individuals with special needs and their families in the earthquake zone or any province and their recommendations regarding future disasters. The research title is "Evaluation of Interventions for Individuals with Special Needs After the Earthquake: Teacher Perspective", the decision number is 2023/99 and the date information is 21.06.2023.

### 3. Findings

After the interviews conducted in the research, four main themes and their sub-themes were reached. The main themes are shown in Table 2.

**Table 2**

*Teacher Opinions Main Themes*

Main Themes
1. Needs after the earthquake
2. Difficulties after the earthquake
3. Positive aspects of interventions for individuals with special needs after the earthquake
4. Recommendations after an earthquake

The main themes were handled as sub-themes and codes. Firstly, the theme of needs after the earthquake and sub-themes of this theme are given.

#### 3.1. Needs After the Earthquake

As a result of the content analysis, one of the main themes was identified as needs after the earthquake. The needs expressed by the participants are grouped under the headings of needs for individuals with special needs, needs of families and needs of volunteers. The sub-themes are shown in Table 3.

**Table 3**

*Needs After the Earthquake*

Sub- Themes
1. Needs for individuals with special needs
2. Needs of families
3. Needs of volunteers

Sub-themes and codes related to needs after the earthquake are given in detail. Firstly, the needs of individuals with special needs are addressed.

##### 3.1.1. Needs of individuals with special needs

In the process after the earthquake, individuals with special needs were affected in many ways. Two prioritized needs stood out in the interview conducted with the participants. Considering the post-earthquake conditions, participants stated that it is important to organize routines and provide access to devices designed specifically for individuals with special needs, after meeting the priority needs of each individual, such as shelter and nutrition. The codes are shown in Table 4.

**Table 4**

*Needs of Individuals with Special Needs*

Codes	f
1. Organize routines	6
2. Provide access to devices	4

Stating the role of routines in regulating emotions and behaviours for individuals with special needs, Participant V. emphasized the effect of creating routines on the "acceptance of life there". Participant E. said "routine" was the most important need, and then, due to the constant change of volunteer teachers assigned to special needs, he emphasized the importance of organizing individuals' routines. In addition, the statement: "We were having difficulty accessing devices" by Participant Ö. shows that the need for devices came forward, especially in the third week after the earthquake.

### 3.1.2. Needs of families

In the period after the earthquake, not only individuals with special needs but also their families were affected in many ways. Two needs are prioritized by the participants. The needs of families are grouped under the headings of accommodation conditions and psychosocial support. The codes are shown in Table 5.

**Table 5**

*Needs of Families*

Codes	f
1. Accommodation conditions	5
2. Psychosocial support	3

The most basic consequence of the earthquake is the housing problem, which is also a primary need for families with children with special needs. Making children with special needs feel comfortable and safe in their routines has an important role in their learning and development. On the other hand, having to leave their safe areas has further increased the difficulties for individuals with special needs and, as a result, their families. For this reason, the importance of the need for shelter has increased even more. Participant E., based on his own tent city experience, emphasized the negative impact of the process on individuals with special needs by saying "...There was also wind blowing for 4 days. We couldn't sleep, and as much as we were affected, the children with special needs were even more affected". On the other hand, the inadequacy of accessibility regulations in shelter areas was expressed by participant Ö. with these words: "... I worked hard to build a ramp in my camp.". Families of individuals with special needs have needed priority accommodation arrangements due to the special needs of their children. Participant S., while expressing the needs of the families, said, "You know, the families had so many needs that they also had a lot of needs in terms of shelter, food, drink or financial resources." and emphasized the needs of families regarding basic needs. It is seen that the earthquake caused mental/psychological damage as well as financial loss. Regarding the needs of the families, volunteer teachers stated the need for psycho-social support immediately after the need for shelter. Participant M. said "Especially families need psychoeducation. In other words, we saw that they were in the process of making sense of the event." In the words of participant S., "The need for social or psychological support seemed very clear, I can express it as briefly as possible.", the importance of psycho-social support was emphasized.

### 3.1.3. Needs of volunteers

In the post-earthquake period, many teachers and experts volunteered in the provinces of the earthquake region. Three needs stood out in the prioritized needs of volunteers in the earthquake zone. Participants listed their needs in the earthquake regions where they voluntarily went, and these needs are classified under the headings of training for disasters, psychological support, and training for communication with parents. The codes are shown in Table 6.



**Table 6***Needs of Volunteers*

Codes	f
1. Training for disasters	6
2. Psychological support	4
3. Training for communication with parents	2

The most highlighted need was disaster training. Participants stated that they should be more prepared about what to do in the earthquake region and who will be responsible and authorized for what. Participant E. said "Training needs to be given. How can it be coordinated? ...Who can take part?" participant F. said, "We need disaster training, no matter what."

Another need was expressed as the inadequacy of psychological support for those providing support. Regarding the difficulty of the process, participant Ö. said "I was lost for a moment, I mean lost like a state of trauma." Volunteers who did not feel adequately informed and supported stated that they needed psychological support as part of the process. Participant F. said "You know, specifically, my professional needs are not as a special education teacher, but as an individual. I also felt a need to know how to treat people who experience disaster." and emphasized the need for the psychological dimension of the process.

The last need expressed by participants was training for communication with parents. The majority of the teachers who participated in the interview and who had met and worked with individuals with special needs in the earthquake region by assignment were special education teachers. However, since teachers work one-on-one with children with special needs under normal conditions, they stated that difficulties related to the psychological condition and communication with families were observed in the post-earthquake period. Therefore, communication training with parents should be considered as a part of disaster training. Participant Ö. stated the need for support regarding communication with families as follows:

"... I felt the lack of it a little bit. So, how should we communicate with parents during this disaster period? So, children with special needs are like eating and drinking for us now. We do this very easily, but I think a special education teacher who does not meet parents every day might have a little difficulty in that process. That's why disaster training had to be given to us on a parent basis."

**3.2. Difficulties after the earthquake**

In the study, the theme of difficulties after the earthquake was identified as the second theme. The difficulties stated by the participants regarding the process were parents' limitations in recognizing and expressing their needs, planning, coordination, and communication. The sub-themes are shown in Table 7.

**Table 7***Difficulties After the Earthquake*

Sub- Themes
1. Parents' limitation in recognizing and expressing their needs
2. Planning
3. Coordination and communication

Sub-themes and codes related to difficulties after the earthquake are given in detail. First, the limitations of parents in recognising and expressing their needs are included.

### 3.2.1. Parents' limitations in recognizing and expressing their needs

Families' inability to recognize their needs and inability to express their needs were identified as sub-themes of the theme related to the difficulties experienced after the earthquake. Two headings stood out in this sub-theme. In this region, it was seen that families are not aware that they can demand their needs from the state and that they do not know their rights.

**Table 8**

*Parents' Limitations in Recognizing and Expressing Their Needs*

Codes	f
1. Failure to recognise needs	2
2. Inability to express their needs	2

Participant F. summarized this situation with a striking expression regarding the habits before the earthquake with the statement: "The people there naturally learned not to need it before...". Another statement from Participant F. shows that parents of children with special needs experience limitations in recognizing and expressing their needs in rights-based ways:

"..... You being here right now is the highest quality service I have ever received for my child. ...Families don't need anything. ...We're asking if you don't want a tent, they're sleeping in the car. Well, sir, we are getting by our house has not been demolished here anyway, but we are taking precautionary measures. So, we manage. A child with autism does not stay in a public area. Because it makes noise, they don't even ask for it. So, at this point, we have a little bit of learned helplessness. While it is generally accepted in our country, it is even more hurtful for me to see this in the earthquake zone."

### 3.2.2. Planning

Another sub-theme of the theme of difficulties after the earthquake is planning. Five headings stood out in the sub-theme of planning. Planning was examined in the dimensions of not having an emergency/action plan, inadequate job descriptions, not having sufficient knowledge and experience, authorities not knowing/understanding the needs of individuals with special needs for the management of resources, and not meeting the psychological support needs of volunteers.

**Table 9**

*Planning*

Codes	f
1. Not having an emergency/action plan	6
2. Inadequate job descriptions	3
3. Not having sufficient knowledge and experience	2
4. Authorities not knowing/understanding the needs of individuals with special needs for the management of resources	2
5. Not meeting the psychological support needs of volunteers	2



The lack of an emergency/action plan was stated as the most frequently mentioned difficulty by the participants. Volunteering with limited knowledge and experience about the possible problems of individuals with special needs and their families regarding the situations that may occur before and after the earthquake and the solution to these problems was identified as the most fundamental difficulty of the process. Participant M. "When we look at what can be done about individuals with special needs, crisis management, disaster and emergency management should be a system approach. In other words, any deficiency in the system does not accept mistakes, unfortunately." emphasized the importance of the emergency/action plan in the pre-disaster planning process. Participant F. "We really need a scaffolding on how we will act there. It is prepared in advance. I mean, I will know that when I go there from Istanbul, such and such people can solve my problem there before I even think about it. You know, this is what we needed there...", he emphasized the importance of planning to ensure the healthy functioning of the process in terms of quality volunteer support by defining job descriptions in advance while taking knowledge and experience into consideration. Participant Ö. expressed the inadequacy in job descriptions, which is the second difficulty related to planning, and the obstacle to the correct use of volunteer resources with the expression "I got into a great mission confusion. Maybe we criticize so much, which I criticized a lot when I was there, maybe we were the person there, I mean we were the main person, I mean we were the one who should see the needs of the family there...". The lack of planning also emerged as an important factor in the process of proper resource management and caused volunteers to solve problems by taking the initiative against the lack of specification in their duties and responsibilities. Participant V. summarized this situation with the following statements:

"In Hatay, we had a special educator unit responsible for the whole province and three or four colleagues who constantly travelled to the field. When we had a shortcoming or a need, we would first share this problem with them. They would meet with the authorized brothers and sisters in quotation marks instead of us. But there was such a density and disconnection that sometimes you had to take the initiative anyway."

One of the main reasons for taking this initiative is the lack of planning based on knowledge and experience, as mentioned before, as well as the insufficient knowledge of the authorities about the needs of individuals with special needs. Participant Ö. exemplified the inadequacy of the authorities in knowing and understanding the needs of this field with the following statements:

"I mean, for example, a special tent for someone with autism. For me, it was an essential thing, or he wanted the tent next to his grandmother. But his interlocutor, the unit distributing the tents, treated it as a very luxurious need. Apart from that, he wanted a device, or he needed to have his glasses checked, he has a visual impairment, he has low vision, again, this was met as if it was a great need, a great luxury."

Finally, Participant E. emphasized the importance of volunteers receiving psychological support as part of the planning: "I came here to help, I need to recover. ...We are sleepless for four days, but we need to help the children. This is what we need to do. I have seriously suppressed it in my subconscious mind." She stated the importance of the psychological dimension of the process.

### **3.2.3. Coordination and communication**

The last sub-theme of the difficulties after the earthquake is coordination and communication. In this sub-theme, seven headings stood out. These seven headings are as follows: the process proceeding mainly with local resources and personal efforts, failure to establish healthy relations with non-governmental organizations (NGOs) and volunteer organizations, disruptions/conflicts in communication and cooperation between institutions, difficulty in reaching the authorities, the inability

to reach families not in tent cities, difficulties in storing and delivering materials and attempts to intimidate volunteers.

**Table 10**

*Coordination and Communication*

Codes	f
1. The process proceeding mainly with local resources and personal efforts	6
2. Failure to establish healthy relations with NGOs and volunteer organizations	5
3. Disruptions/conflicts in communication and cooperation between institutions	4
4. Difficulty in reaching the authorities	3
5. The inability of aid to reach families not in tent cities	1
6. Difficulties in storing and delivering materials	1
7. Attempts to intimidate volunteers	1

The most highlighted difficulty related to coordination and communication is the process proceeding mainly with local resources and personal effort. Participant Ö. explained the importance of personal efforts in the process as follows:

“We learn from her parents that s/he kidnapped the child underneath. S/he needs more clothes because s/he's lost underneath. Only I can understand that this is a real need. We were forbidden to get the phone number under normal circumstances. I took the initiative and got the phone numbers of the authorities. If I hadn't insisted on that if it had not been my individual effort...

...I asked the governor for the hearing aid of the student I'm talking about with hearing impaired, for example. I stick to the governor. I told the student that he needed a hearing aid, so the governor could supply it. That's how hearing aids came in. I mean, whoever came in like this had to tell him to...But when it was just said and left, that need wasn't addressed. Because there's a lot of need, and only we could see the most necessary needs, and that's the disruptive thing that came somewhere, from my point of view, with an entirely individual effort.”

The second most mentioned theme is the failure to establish healthy relations with NGOs and volunteer organizations. For this theme, participants stated that they did not see NGOs working in the field of disability in the region. Participant M. expressed; “I also saw that there were some NGOs in the places I worked, but I had never noticed an NGO directly related to special education. So, I don't remember at all.”

Another frequently mentioned theme is disruptions/conflicts in communication and cooperation between institutions. The Participant Ö. emphasized the disruptions/conflicts in the communication and cooperation with the following words:

“The bureaucracy has a tremendous number of bureaucracies. There's bureaucratic fighting, and we tried to do our job in that fight. Actually, I've used this bureaucratic struggle somewhat in my interest, in the interests of the children. So, I could have crushed it under this, I could be ego and do something, but now we're in a mode where somebody does what my teacher V said, and whoever does whatever. In that bureaucratic struggle, the National Ministry of Education's poster is falling over the tent. Family Social Policies hanging. Aaa minister's coming. He sees the tent. Hoppa (sounds of surprise) tents are changing again. So we've been dealing with these little things.”

Another sub-theme identified within the coordination and communication theme is the difficulty in reaching the authorities. Participant V. stated this problem as follows: "There was a problem with the interlocutor. You know, apart from that, everything was there. But I can say that there was no qualified staff to organize this." Participant F., on the other hand, expressed the difficulty in reaching the authorities as follows: "... when we wanted to establish a library... We told everyone, and then someone got the idea and sent a tent. But we told 20 people to get it done." Since it was difficult to reach the authorities, volunteers stated that they exhibited behaviours to solve problems by taking initiative or making more effort.

Other mentioned themes are listed as "failure of aid to reach families not in tent cities", "difficulties in storing and delivering materials" and "attempts to intimidate volunteers ". The tent that the participants expressed under the theme of "difficulties in storing and delivering materials" is also striking in terms of explaining the obstacles in reaching aid to those living outside the city. Participant V. said the following regarding this issue.

Difficulty in coordination and communication is the substantial amount of materials and resources, while there are difficulties in storage, recording the inventory, and rapidly identifying the need. Participant V. "But except that, I saw material that I didn't see in Istanbul. Something's really been sent out. But there's no place to put it or anyone to direct it." The statements illustrate the difficulty in coordination. Under the heading of attempts to intimidate volunteers, Participant E. stated the following; especially long-term assignments were made, and volunteers were told to work on weekends.

### 3.3. Positive aspects of post-earthquake intervention for persons with special needs

In the study, the positive aspects of interventions for individuals with special needs after the earthquake were identified as the third theme. Three sub-themes were found in this theme. The positive aspects of the interventions are summarized in the subheadings: the positive aspect of the practices presented, the positive aspects of collaborations and the positive aspects of volunteers' contributions. The sub-themes are shown in Table 11. Among these three sub-themes, the sub-theme related to the positive aspect of the interventions and the processes related to the codes of this sub-theme were included in detail.

**Table 11**

*Positive aspects of interventions for individuals with special needs after the earthquake*

<b>Sub- Themes</b>
1. The positive aspect of the interventions
2. Positive aspects of collaborations
3. Positive aspects of volunteers' contributions

Firstly, information on the sub-theme related to the positive aspect of the interventions will be given.

#### 3.3.1. The positive aspect of the interventions

When the sub-theme of the positive aspect of the interventions is examined, three headings stand out. The positive aspects of the proposed practices relate to the practices presented, some of which the interviewed teachers considered positive in terms of interventions offered to individuals with special needs after an earthquake. In this context, participants mainly mentioned that the application and the environment are inclusive. The codes are shown in Table 12.

**Table 12***The Positive Aspect of The Interventions*

Codes	f
1. Inclusive application and environment	5
2. To be supported by counselors	3
3. The effort and dedication shown by the volunteers	3

"In fact, it was the most beautiful encompassing environment I've ever seen in my place," said participant Ö. "There's a handicapped, hearing impaired, small, big. And the activities of the guide teachers are well suited to the already inclusive activities." that supports the situation. It has been observed that another positive aspect of the presented applications is meeting basic needs. Ö. and E. stated that the basic needs of people and volunteers in the earthquake zone, such as food and clothing, were met. Similarly, it was stated by the participants that there are materials and equipment that can meet special education needs. Participant Ö. explained this situation with the words "The material already has great material support." Other positive aspects of the offered applications were found to be related to volunteers. In this context, the participants stated that they were informed about the difficulties that may be encountered and therefore they went to the earthquake zone prepared.

In addition, participants pointed out that they were supported by guidance counsellors as another positive aspect. F., one of the participants said:

"We were able to notice this situation immediately when I collapsed, for example, but they (guidance counsellors) might not have noticed it." "If it weren't for them, or if we went there as teachers, maybe we would only have problems as special educators."

The last positive aspect of the practices was found to be related to the effort and dedication shown by the volunteers. About this situation, Participant Ö. expressed: "Because there is so much need. And only we were able to send the essentials for this, this was the hurtful thing, in my opinion, we got somewhere completely with individual efforts" and F. used the expressions:

"We were a team, if we were going to argue in the evening, we argued. But in the morning, we continued our work where we left off. We proceeded with the mentality that we would continue perfectly. And that's why I can say that we made a difference in the tent city, for example."

**3.3.2. Positive aspects of collaboration**

The second sub-theme of this theme is the positive aspects of collaborations. Some of the positive aspects that the participants mentioned regarding the interventions offered to individuals with special needs after the earthquake are related to collaborations. In this context, it was observed that the participants talked about the positive aspects of the cooperation between institutions, organizations, and volunteers. The codes are shown in Table 13.

**Table 13***Positive Aspects of Collaboration*

Codes	f
1. The positive aspects of the cooperation between institutions and organizations and volunteers	4
2. Strong communication and coordination among volunteers	4

For example, Participant V.: "Well, sir, rather than this issue, there were many organizations around us that I cannot think of right now, such as the ministry institutions, the Ministry of Family and Social Policies, the Ministry of Religious Affairs, and there were many things with them. "We had a nice interaction," he said. Similarly, participant M. said, "We were directing them to state the needs with AFAD, which is responsible for that tent city or container city. We had cooperation with the Red Crescent. We were guiding how to contact the Red Crescent if there was anything related to the archive service in terms of direct logistics...".

In addition, participants stated that there was strong communication and coordination among volunteers. Participant Ö., for this reason, "My friends and I agreed, so in terms of collaboration in general, having everything together was something I really liked. It's the fact that everyone is helping each other, you bring it to him, it's accessible. You immediately go to the back and say, "Oh, there is such a person." "From there it had a nice accessibility." Participant F. said, "Think of it like a cog in the machine. We entered and exited directly there. We did it for a week and the families all knew it. When they are gone, those who replace them will be just like them. Very good. "There was such an environment." By using these expressions, participants emphasized that volunteers also have a strong interaction with families.

In this context, one of the participants, E., stated that the families are in a better psychological situation because they feel that they are not forgotten, that they have serious interactions with the families and that they still meet with the families. Finally, one of the participants mentioned the positive aspects of cooperating with NGOs. To indicate this, participant V. said, "I worked with NGOs, we worked very actively with one NGO, in particular. The Pikolo Association was founded there and is against child labour. "There was a Pikolo Association in Küçükdalyan, while I was trying to set up the special training tent, we got all our data from them."

### 3.3.3. Positive aspects of volunteers' contributions

The third sub-theme of this theme is the positive aspects of volunteers' collaboration. Some of the positive aspects of the interventions offered to individuals with special needs after the earthquake are related to the contributions of volunteers. In this context, the volunteers' contributions were directed towards both the families and the volunteers themselves. The codes are shown in Table 14.

**Table 14**

*Positive Aspects of Volunteers' Contributions*

Codes	f
1. Contributions of volunteers to families	5
2. Contribution of volunteers to volunteers	3

One of the contributions of volunteers to families was their relief. The expressions in the following lines support this situation:

"The forty-five-minute session I gave there did not have a great importance for me, but the happiness and peace in those families was a very satisfying feeling for me." (Participant V.);

"The fact that we were able to organize the children in such situations and create an environment to meet with the families made the families very comfortable during that week." (Participant F.)

Participants also stated that their contributions enabled them to recognize and express the needs of families. Finally, the participants stated that families outside the tent city could not receive aid and that these families also received aid with their contributions.

Participants reported that their volunteer work brought some benefits for them. The first of these was professional satisfaction. V., one of the participants, made the following statement regarding this: "As an individual, I realized that I was really a teacher there. I achieved professional satisfaction." M., one of the participants, said, "I was really satisfied professionally... I really thought I was useful to people." In addition, one of the participants, V., stated that volunteering contributed to making good friends as follows:

"I made very good friends because that was my idea anyway. The person who comes there has no expectations and is a person who knows himself, thinks and questions. As I said, I made very good friends."

#### 4. Recommendations after the earthquake

Another theme that emerged as a result of the analysis of the data was recommendations. Participants' suggestions for planning or implementation for similar emergency and disaster situations can be listed as NGOs working more and increasing their visibility, politicians, NGOs, and researchers working in cooperation, creating a digital data system, organizing disaster training, and drilling and simulation studies. The codes are shown in Table 15.

**Table 15**

##### *Recommendations After the Earthquake*

Codes	f
1. NGOs working more and increasing their visibility	5
2. Co-operation between policy makers, NGOs and researchers	4
3. Creation of a digital data system	4
4. Organizing disaster education	4
5. Drill and simulation studies	2

The most highlighted recommendation is for NGOs to work more and increase their visibility. Ö., one of the participants, expressed her suggestions that NGOs should work harder and increase their visibility in similar emergencies and disasters:

"As I said, NGOs will do this, maybe we will do this. Maybe NGOs need to increase their visibility. I don't know, we need to somehow show that we can work together. Or we should be able to do this. This is how we talk when I think about what can be done for the future. It could have been the work of NGOs."

Another suggestion from the participants was that politicians, NGOs and researchers should work in cooperation. The expressions in the following lines support this: "So I think it would be very nice. Other than that, I think all the things we talked about come together in one thing. Policymakers, NGOs, and researchers working together. Researchers are angry with the Ministry of Education. The Ministry of Education has an attitude towards NGOs. Because some things are doing things that make a splash. Of course, these are beautiful. In other words, there are maybe four or five networks in this business. I wish we could work together. I wish we had a common network." (Participant Ö.).

Another suggestion from the participants during the interviews was to create a digital data system. Regarding this, one of the participants, Ö. He used the following expressions.



“The duty of the Guidance Research Centre (GRC) should have been to give me information. There is a great resource out there. GRC has everything in their hands, from your address to your phone. So maybe if there was a tab like this... I mean, paper after paper, file after file, and all of that is in the system. Why couldn't we get them? So, these would look like a small tab. It's easy when you get into technology.”

Another suggestion is to organize disaster education. Participants stated that disaster training should be organized for similar emergencies and disaster situations. Regarding this, "We need disaster education, no matter what it is" (Participant F.) and "So how should we communicate with parents during this disaster process? ... I think a special education teacher who does not meet parents every day might have a little difficulty in that process. Therefore, disaster education had to be given to us on a parent basis" (Participant Ö). The last suggestion of the participants was drill and simulation studies. S., one of the participants, offered this suggestion with the following words:

“With simulation studies if children go through this process... drills are being carried out. Simulation studies have also been conducted on children with special needs. And it seems that these have created very serious differences, and in some countries, very serious solution plans have been prepared based on these, as F. said, action plans have been prepared.”

## **5. Discussion, Results and Suggestions**

In this study, it was aimed to determine the experiences of the experts who met with/supported individuals with special needs and their families in the earthquake zone or any other province and their suggestions for future disasters. In line with this goal, a focus group interview was conducted. As a result of the interview, four main themes were identified: needs after the earthquake, difficulties after the earthquake, positive aspects of interventions for individuals with special needs after the earthquake and recommendations after an earthquake. When the theme of needs after the earthquake was examined, the sub-themes of needs for individuals with special needs, their families and volunteers emerged. When we look at the needs of individuals with special needs, it is noticeable that they have needs such as the organization of routines and access to devices; when we look at the needs of families, we see that they need the organization of shelter conditions and psychosocial support; and when we look at the needs of volunteers, we see that they need disaster training, psychological support and communication training with parents. When the theme of difficulties after the earthquake is examined; the limitations of parents in recognizing and expressing their needs, planning, coordination, and communication sub-themes were reached based on the difficulties stated by the participants regarding the process. Participants identified the lack of an emergency/action plan as the most important challenge in the process. In addition, it is seen that families do not have a rights-based perspective and need information on what they should demand in this process. In the planning sub-theme, difficulties such as the lack of an emergency/action plan, insufficient job descriptions, not having enough knowledge and experience, authorities not knowing/understanding the needs of individuals with special needs for the management of resources, and not meeting the psychological support needs of volunteers were identified. In the sub-theme of coordination and communication, difficulties in reaching the authorities, the process proceeding mainly with local resources and personal efforts, the inability to reach families not in the tent city, difficulties in storing and delivering materials, disruptions/conflicts in communication and cooperation between institutions, failure to establish healthy relations with NGOs and volunteer organizations and attempts to intimidate volunteers came to the fore.

When the theme of positive aspects of interventions for individuals with special needs after the earthquake was examined, the sub-themes of positive aspects of interventions, positive aspects of collaboration and positive aspects of contributions of volunteers were found. When these sub-themes are examined, it is seen that the environment is inclusive, some materials and supplies can meet special

education needs, and the effort and dedication of volunteers and the cooperation of NGOs came to the fore. When the last theme, recommendations after an earthquake, is considered, it is determined that NGOs should work more and increase their visibility, politicians, NGOs, and researchers should work in cooperation, a digital data system should be created, disaster training should be organized, and drills and simulation studies should be conducted.

Individuals with special needs are more vulnerable than individuals with typical development in many aspects during the disaster process. Individuals with special needs are more at risk during the evacuation process from their homes in disasters. After the disaster, they need more psychological, physical, and educational support (Stough et al., 2017). Individuals with special needs may face obstacles during emergency response and rescue efforts. During disasters, the process becomes difficult for children with special needs who need electricity as medical support and children in wheelchairs. Disasters also affect parents and parents often have difficulty in responding appropriately to their children's needs (Alexander, 2015). Children with special needs may experience a decrease in their academic achievement or behavioural problems with the disaster process, and situations such as the loss of teachers and personnel working with children with special needs, damage to accessible schools, and loss of records related to special education affect children with special needs and their families. In short, children with special needs are often disproportionately exposed to the effects of disasters (Stough et al., 2020).

Looking at the literature, there are studies on individuals with special needs and the disaster process (Boon et al., 2011; Ronoh et al., 2015; Türk, 2022; Tonak & Kitiş, 2022; Pakalın & Mersin, 2023). In addition to these studies, there are studies on the disaster preparation skills of individuals with special needs (Garcia et al., 2016; Musaoğlu, 2022). A limited number of studies conducted with experts or teachers working with children with special needs (Kato et al., 2014; Kawasaki, 2022) were found. There is no study conducted with teachers who were assigned to the earthquake region after the disaster as in Türkiye, and there is also no study in which focus group interviews were conducted with teachers after the earthquake.

Considering the views of the participants in the study and the studies in the literature, it is seen that planning the process before, during and after the disaster is of great importance. Knowing what can create danger in the pre-disaster process and making preparatory studies to minimize possible dangers can reduce the possibility of individuals with special needs being negatively affected by the disaster process. Individuals with special needs and their families should be included in the planning process related to the disaster process within the framework of a rights-based approach and it is important to develop disaster management strategies sensitive to special needs (Türk, 2022). After the disaster, individuals with special needs should be evacuated to safe places and their basic needs should be met. Gathering areas should be accessible. After the disaster, basic needs should be met in cooperation with public and NGOs (Bilik & Akdağ, 2023). In addition, the suggestion of the participants in the study to create a digital database is also supported by other studies in the literature. For example, in a study conducted by Proffitt Lavin et al., (2012), it is mentioned that it may be easy to establish a national network and database for case management in disasters and to determine the needs of individuals with special needs with this network.

When other studies in the literature are examined, it is stated that individuals with special needs in the post-disaster process need resources and support in shelter, health, education, and transportation services as well as finding a job and being employed after a certain period. In addition to this, it is also seen that individuals with special needs face problems such as intensive paperwork or prolonged support processes in the process of accessing services in the post-disaster process (Stough et al., 2016). It is seen how important it is to plan the pre-disaster process against such situations that may occur

after the disaster. In addition, the importance of disaster training, drills, and simulation studies, which are included in the recommendations section of the study, is also emphasized in other studies in the literature. Baker et al., (2012) emphasize that families should include a three-stage preparation process in the pre-disaster process. This preparation process consists of stages such as having information about potential hazards in their environment, making communication and evacuation plans, and creating a self-sufficient material set within three days after the disaster. In addition, it is emphasized that the media should also work on disaster preparedness at home.

Considering the research conducted, the limitation in recognizing and expressing the needs of parents, which is a sub-theme of the theme of difficulties after the earthquake, is a very important finding. Establishing public social support programs will ensure that parents are aware of their needs, rights, and social supports. In addition to this, social policies are also needed to eliminate disadvantages for individuals with special needs (Yılmaz, 2022). As a result, a holistic and multidimensional approach to disaster management determines the post-disaster process. It is vital to create a disaster management model that includes all individuals and to take the opinions of individuals with special needs, families, experts, and NGOs working with individuals with special needs, to cooperate with them and to inform them about the process while creating this disaster management model.

## 6. Limitations

The research was conducted as an online focus group interview due to the conditions of the teachers. This situation may be one of the limitations of the research. It is important to conduct more than one focus group interview in order to diversify the data obtained. In terms of the recommendations of the research, future researches can be designed in a different research model. In addition, more teachers can be included in the research. Interviews can be conducted in face-to-face.

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