European Journal of Social Sciences Studies
ISSN: 2501-8590
ISSN-L: 2501-8590
Available on-line at: www.oapub.org/soc

DOI: 10.46827/ejsss.v11i4.2071 Volume 11 | Issue 4 | 2025

A CASE STUDY ON THE SELF-CONCEPT OF EARTHQUAKE SURVIVORS WITH SPECIAL NEEDS

Gülten Caca[i]
Independent Researcher in Special Education,
Turkey

Abstract:
Earthquakes are destructive natural disasters that originate deep within the Earth's crust. This study explores whether students with special needs (SwSN) who survived an earthquake exhibit long-term effects on their self-concept. The sample comprises 104 SwSN (50 female, 54 male), aged 5–30 and enrolled in grades 0–8 at a Guidance and Research Center (GRC) in Kahramanmaraş during the 2023–2024 academic year. Employing a phenomenological case study design, the research presents both quantitative and qualitative findings. In the first section, demographic variables such as age, gender, and type of disability were analyzed. In the second, the Blob Tree Test was used to examine participants' responses, focusing on two dimensions: the *Self-Representational Figure* (SwSN-SRF), indicating the figure they identified with most, and the *Desired Position Figure* (SwSN-DPF), reflecting the figure they wished to be. Results show that most SwSN earthquake survivors were male, aged 11–15, diagnosed with intellectual disabilities, and residing with their families. Many had experienced loss during the earthquake. SwSN-SRF responses revealed efforts to overcome obstacles, seek peace, and obtain social support. SwSN-DPF responses emphasized aspirations for leadership, achievement, and stronger social ties.

Keywords: special education, natural disaster, character, personality

1. Introduction

Earthquakes are natural disasters that leave profound and lasting impacts on societies. Beyond the physical destruction, they also cause severe emotional and psychological trauma in individuals. For people with special needs, these impacts can be even more devastating and long-lasting. Earthquakes affect not only physical structures but also the psychological, emotional, and social conditions of individuals. In children and young people who are in the process of development, earthquakes may lead to trauma, alter

[i] Correspondence: email gylcaca1@hotmail.com

their self-concept, and these changes can potentially become permanent (Norris *et al.*, 2008).

In the aftermath of earthquakes, the varying impact of trauma among individuals with special needs raises critical questions about their self-perceptions. In this context, understanding whether there is a permanent change in the self-concept of earthquake survivors with special needs emerges as a crucial area of research.

The aim of this study is to examine whether there are lasting traces of change in the self-concept of earthquake survivors with special needs. While studies addressing the psychological and emotional effects of earthquakes have mostly focused on the general population, the post-trauma processes of individuals with special needs have been comparatively underexplored (Kiełb *et al.*, 2019). Addressing this gap, the present study aims to explore the changes in self-concept among individuals with special needs following earthquakes.

Earthquakes are not only among the most destructive natural disasters but also events that profoundly affect individuals' psychological and emotional well-being. For individuals with special needs in particular, such disasters pose additional challenges (Genç & Yılmaz, 2024). Investigating whether these impacts on self-concept are permanent is essential both for highlighting the importance of post-disaster psychological support and for better understanding the recovery processes of these individuals.

Self-concept is the set of feelings, thoughts, and beliefs an individual holds about themselves. It is a fundamental structure that shapes how one responds to the external world and to others (Ferguson & Nusbaum, 2012). Traumatic experiences such as earthquakes may cause significant alterations in self-concept, and these effects can become more pronounced among individuals with special needs. Understanding how post-earthquake trauma shapes their sense of identity, self-esteem, and selfhood is a critical research topic that underscores the necessity of psychological interventions (Gürgör Kılıç *et al.*, 2024).

In this study, the Blob Tree Test was employed to investigate changes in the self-concept of individuals with special needs following earthquakes. This test serves as an important tool that enables these individuals to express their emotions. It is anticipated that the changes in self-concept observed among participants will play a significant role in identifying the need for psychological interventions at both individual and societal levels.

2. Literature Review

2.1 Earthquake Experiences of Individuals with Special Needs

Natural disasters are events that affect all individuals physically, emotionally, and psychologically. However, the impact of such events may be deeper and more permanent on individuals with special needs. Due to the challenges they face during and after disasters, these individuals require more support and specific planning (Disaster and Emergency Management Authority—AFAD, 2021). In sudden-onset disasters such as

earthquakes, the difficulties experienced by individuals with disabilities emerge as an important issue in terms of disaster management and social awareness (Yıldırım, 2024).

Individuals with intellectual, physical, or sensory impairments may struggle to cope with the sudden severity of an earthquake. For instance, a visually impaired individual may have difficulty perceiving evacuation routes, while a person with hearing impairment may be unable to hear emergency announcements. Individuals with autism spectrum disorder may experience panic due to hypersensitivity to loud noises and sudden changes (Alkan *et al.*, 2019). Such situations may endanger both the individual and those around them.

After an earthquake, problems faced by individuals with special needs in areas such as shelter, hygiene, psychosocial support, and the fulfillment of basic needs are considerably greater compared to the rest of society. Temporary shelters designed for individuals with different disabilities may not be suitable for those with physical impairments (AFAD, 2021). Furthermore, the psychological effects of trauma experienced by individuals with special needs may be long-term, and their post-disaster rehabilitation processes require more comprehensive planning (Yıldırım, 2024).

The role of families and caregivers is of vital importance in the disaster experiences of individuals with special needs. However, in events such as earthquakes, the trauma experienced by family members may weaken this support (Özdemir, 2024). Therefore, disaster preparedness must include families as well and incorporate special plans for crisis situations (United Nations Office for Disaster Risk Reduction—UNDRR, 2023).

The disaster experiences of individuals with special needs are not only an individual matter but also a societal responsibility. Disaster management plans must be inclusive, adapted to the needs of individuals with special needs, and supported by personnel training (AFAD, 2021). Moreover, disaster education and drills should be designed according to the characteristics of these individuals, and psychosocial support should be provided in the aftermath of disasters (Yıldırım, 2024).

2.1 Self-Perceptions of Individuals with Special Needs Regarding the Earthquake Process

2.1.1 The Psychological Impact of Earthquakes and Self-Perceptions

Traumatic events such as earthquakes undermine an individual's sense of security and create fractures in self-perception. As noted by Shao *et al.* (2013), people tend to perceive the world as safe, meaningful, and the self as valuable. However, traumas destroy these fundamental assumptions, leading to profound effects on self-concept (Shao *et al.*, 2013). Individuals with special needs are particularly vulnerable to these destructive effects. For instance, following the Sakarya earthquake, it was reported that individuals with physical disabilities exhibited low levels of self-esteem and high levels of persistent anxiety (Karataş & Duyan, 2004).

Similarly, Dilmaç (2022) emphasized that children experienced a decrease in self-confidence levels after an earthquake, although these levels could recover over time (Dilmaç, 2022).

Park (2023) highlighted that social support and a sense of belonging significantly contribute to the development of self-esteem among adolescents with intellectual disabilities. At this point, the roles of families, educators, and post-disaster service providers are highly critical (Park, 2025).

As stated by Shao *et al.* (2013), traumatic events can shatter individuals' perceptions of the world and the self. This theory provides an important framework for understanding the impact of earthquakes on the self-perceptions of individuals with special needs (Shao *et al.*, 2013).

The impact of natural disasters such as earthquakes on individuals requiring special education is not limited to physical dimensions but also encompasses emotional, social, and cognitive aspects. Self-concept is a fundamental variable in terms of the quality of life and social adaptation of these individuals. Therefore, incorporating psychosocial interventions that support the development of self-concept in pre- and post-disaster processes is of great importance (Park, 2025).

3. Method

3.1 Research Design

Since this study aims to gain an in-depth understanding of the current situation, it was structured as a descriptive case study based on the phenomenological approach, which is one of the qualitative research designs. The phenomenological approach is a qualitative research method that focuses on understanding individuals' subjective experiences related to their lives (Creswell, 2013). In this approach, participants' experiences, perceptions, and interpretations regarding a specific phenomenon are examined in depth (Yıldırım & Şimşek, 2021).

In order to analyze the quantitative and qualitative data collection tools used in the study, a mixed-method design was adopted. The accuracy of the method selection appropriate to the study is also supported by the statements of the following scholars. According to Wallen and Fraenkel (2013), the mixed-method design is an approach in which qualitative and quantitative data are collected together, and both designs are utilized simultaneously (Wallen & Fraenkel, 2013). In the same study, the reason or purpose for using both designs together is explained as follows: according to Mills and Gay (2016), the purpose of this design is to achieve a more detailed and comprehensive understanding of a phenomenon by benefiting from the advantages of both qualitative and quantitative designs (Mills & Gay, 2016).

3.2 Study Group

The study group of this research consists of a total of 104 students, 50 female and 54 male, aged between 5 and 30, enrolled in grades 0–8, who were receiving education at a Guidance and Research Center located in the city center of Kahramanmaraş during the 2023/2024 academic year, selected through random sampling. Among the students, 44 were diagnosed with Intellectual Disability (ID), 36 with Autism Spectrum Disorder

(ASD), 12 with Down Syndrome (DS), 9 with Physical Disability, and 2 with Hearing Impairment.

Since the study was conducted after the February 6, 2023 earthquake, the sample size was kept limited by taking into account the challenging circumstances of individuals with special needs, their families, and teachers. The demographic characteristics of the earthquake survivors with special needs included in the study are presented in Table 1.

3.3 Procedure

Before beginning the data collection process, ethical approval, parental consent, institutional permission, as well as the consent of educators and participants, were obtained. Detailed information was provided regarding the importance, purpose, and duration of the study. Prior to the data collection process, the researcher spent time with the individuals with special needs (ISN), engaging in activities such as casual conversation during free-time drama sessions, sharing meals, and conducting pre-orientation preparations.

The first data collection tool of the study was the "Personal Information Form," completed by teachers for each ISN. The second data collection tool was the "Blob Tree Test" (BTT). After conducting drama activities aligned with the test instructions, participants with special needs were provided with information about the test once more. During the Blob Tree Test, red crayons were distributed to participants with the instruction, "Color a child in the tree that resembles you in red." After collecting the red crayons, green crayons were distributed with the instruction, "Color a child in the tree whose place you would like to be in green," thus conducting the second stage of data collection. The first figure that an ISN started to color was considered as valid data.

Table 1: Demographic Characteristics of Special Needs Earthquake Survivors

Variable	Group	Frequency (n)	%
Gender	Female	50	48.1
	Male	54	51.9
Chronological Age	5-10	29	27.9
	11-15	53	51.0
	16-20	20	19.2
	21-30	2	1.9
Type of Disability	Autism Spectrum Disorder (ASD)	36	34.6
	Intellectual Disability (ID)	44	42.3
	Down Syndrome (DS)	12	11.5
	Orthopedic/Physical Disability	9	8.7
	Hearing Impairment	2	1.9
Place of Residence	Home	104	100.0
	Tent	0	0.0
	Container	0	0.0
	Other	0	0.0
Living With	Family	79	76.0
	Mother	4	3.8
	Father	5	4.8
	Older Brother	1	1.0

	Older Sister	1	1.0
	Uncle (Father's Brother)	1	1.0
	Uncle (Mother's Brother)	1	1.0
	Grandfather (Father's Father)	8	7.7
	Grandfather (Mother's Father)	4	3.8
	Grandmother (Father's Mother)	0	0.0
	Grandmother (Mother's Mother)	0	0.0
	Other	0	0.0
Loss During Earthquake	Yes	22	21.2
	No	82	78.8
Individuals Lost in Earthquake	Mother	1	1.0
	Father	2	1.9
	Older Brother	1	1.0
	Older Sister	2	1.9
	Sister	1	1.0
	Brother	2	1.9
	Paternal Grandmother	1	1.0
	Maternal Grandmother	2	1.9
	Maternal Grandfather	1	1.0
	Paternal Grandfather	1	1.0
	Other	87	83.7

The living conditions of earthquake survivor students with special needs were determined as follows: 79 (76.0%) lived with their families, 4 (3.8%) with their mothers, 5 (4.8%) with their fathers, 1 (1.0%) with an older brother, 1 (1.0%) with an older sister, 1 (1.0%) with an uncle, 1 (1.0%) with a maternal uncle, 8 (7.7%) with their paternal grandfather, and 4 (3.8%) with their maternal grandfather. Additionally, the rate of those living with a grandmother (maternal or paternal) was found to be 0%.

Among individuals with special needs who experienced the February 6 Earthquake, 22 (21.2%) reported loss, while 82 (78.8%) reported no loss. The relatives lost in the earthquake were distributed as follows: 1 (1.0%) lost their mother, 2 (1.9%) lost their father, 1 (1.0%) lost their older brother, 2 (1.9%) lost their older sister, 1 (1.0%) lost their younger sister, 2 (1.9%) lost their younger brother, 1 (1.0%) lost their paternal grandmother, 2 (1.9%) lost their maternal grandmother, 1 (1.0%) lost their maternal grandfather, and 1 (1.0%) lost their paternal grandfather. Other losses accounted for a total of 87 (83.7%).

3.3.1 Ethical Statement

In this study, full compliance with all ethical principles specified in the "Scientific Research and Publication Ethics Directive of Higher Education Institutions" was ensured.

3.4 Data Collection Tools

3.4.1 Personal Information Form for Individuals with Special Needs (PIF-ISN)

Following the February 6, 2023, earthquake, two data collection tools were used to examine the self-perceptions of individuals with special needs (ISN). The first data collection tool of this study was the Personal Information Form (PIF), consisting of seven

items regarding the ISN's age, gender, type of disability, place of residence, cohabiting family member(s), experience of loss during the earthquake, and specific relatives lost in the earthquake.

3.4.2 Blob Tree Test (BTT) of Earthquake Survivor Individuals with Special Needs

The second data collection tool was the Blob Tree Test (BTT), also known in Turkish as the "Blob Ağacı Testi" (BAT). This test was first developed by Pip Wilson and is used with both children and adults. However, this study marks the first time it has been applied to ISN. In the test, participants select from among numbered characters, and their outlook on life as well as personality traits are evaluated.

The test consists of 21 figures and 11 group interpretations. For example, selecting numbers 1, 3, 6, or 7 indicates that a person has a determined character who is not afraid of difficulties or obstacles.

These highly motivated individuals are ready for challenges. As another example, selecting numbers 2, 11, 12, 18, or 19 may indicate that the individual is supportive toward friends and has a broad social network. Conversely, choosing numbers 13 or 21 may reflect an anxious personality prone to frequent negative thoughts.

In applying the Blob Tree Test to participants with special needs, two figure options were provided: "The figure resembling oneself (red)" and "The figure in whose place one would like to be (green)."

3.5 Data Analysis

The qualitative and quantitative data obtained in the study were analyzed using a mixed-method design. The "Personal Information Form for Individuals with Special Needs" (PIF-ISN) and the "Blob Tree Test" (BTT) were used as data collection tools. The data obtained were transferred into digital format by the researcher.

3.5.1 Data Collection Tool: PIF-ISN

The data from the "Personal Information Form for Individuals with Special Needs" (PIF-ISN) were analyzed quantitatively using statistical software packages and presented in tabular form. Furthermore, each participant's personal information was coded and transformed into analyzable data.

3.5.2 Data Collection Tool: Blob Tree Test (BTT)

The data obtained from the "Blob Tree Test" (BTT) were analyzed qualitatively. The researcher based the analysis on the 11 group interpretations related to the 21 figures included in the test. The data were organized into two tables using statistical software.

The characteristics of the tables are as follows:

- The first section of Table 1 includes the coded numbers belonging to 11 groups.
- The second section categorizes coded numbers of different figures that share common or similar interpretations.
- The third section matches the 11 group interpretations, predetermined by the test developer, with the views of ISN participants for data analysis.

- The final section includes frequency analysis.

4. Results and Discussion

4.1 Results

The findings of the study are presented in two main sections: quantitative and qualitative. The first section includes the demographic information of individuals with special needs (ISNs), while the second section examines the perceptions of ISNs regarding the Blob Tree Test Self-Representation Figure (BTT-SRF) and the Blob Tree Test Figure Representing the Position of Another Individual (BTT-OPF). The quantitative findings in the first section address ISNs' age, gender, type of disability, place of residence, living arrangements, experiences of loss during the earthquake, and who they lost during the earthquake. These findings are presented in the tables below.

4.1.1 Findings Related to the First Research Question

The age distribution of earthquake-affected individuals with special needs is presented in Table 2.

Table 2: Age distribution of individuals with special needs affected by the earthquake

Age	**f**	**%**
5-10	29	27.9
11-15	53	51.0
16-20	20	19.2
21-30	2	1.9
Total	104	100.0

As shown in Table 2, the majority of participants (53 individuals; 51%) were aged 11-15. Among the remaining participants, 29 (27.9%) were aged 5-10, 20 (19.2%) were aged 16-20, and 2 (1.9%) were aged 21-30. Consequently, more than half of the participants were in adolescence.

According to Mohammadinia *et al.* (2019), assessing resilience in adolescents who experience natural disasters is critical for their health and well-being and plays an essential role in disaster preparedness. Resilience contributes to the recovery from or protection against long-term negative psychological outcomes following a natural disaster. For adolescents, coping, adaptation, and resilience-related skills are particularly important. The greater the resilience of a young person after a disaster, the higher their likelihood of adapting to and overcoming difficulties or trauma (Mohammadinia *et al.*, 2019).

4.1.2 Findings Related to the Second Research Question

The gender distribution of earthquake-affected individuals with special needs is presented in Table 3.

Table 3: Gender distribution of individuals with special needs affected by the earthquake

Gender	**f**	**%**
Female	50	48.1
Male	54	51.9
Total	104	100.0

As shown in Table 3, among the participants, 54 (51.9%) were male and 50 (48.1%) were female. According to Ciampi *et al.* (2020), gender differences significantly affect how individuals experience disasters and contribute to disaster risk reduction and response. Recognizing women's resilience and their roles as key actors is crucial to balance the perception of women as a "vulnerable group" (Ciampi *et al.*, 2020).

4.1.3 Findings Related to the Third Research Question

The distribution of disability types among earthquake-affected individuals with special needs is presented in Table 4.

Table 4: Distribution of disability types among earthquake-affected individuals with special needs

Disability Type	**f**	**%**
Autism Spectrum Disorder (ASD)	36	34.6
Down Syndrome (DS)	12	11.5
Intellectual Disability (ID)	44	42.3
Orthopedic/Physical Disability	9	8.7
Hearing Impairment	2	1.9
Other	1	1.0
Total	**104**	**100.0**

As shown in Table 4, the majority of participants (44; 42.3%) had intellectual disabilities, followed by ASD (36; 34.6%), Down Syndrome (12; 11.5%), orthopedic/physical disabilities (9; 8.7%), and hearing impairment (2; 1.9%). According to the Kahramanmaraş Provincial Directorate of Social Services (2011), 5,272 individuals with special needs reside in the central district of Kahramanmaraş (Republic of Turkey Ministry of Family and Social Services, 2011). According to the 2024 "Kahramanmaraş and Hatay Earthquakes Reconstruction and Development Report" published by the Presidency of Strategy and Budget, there are 775,012 individuals with severe disabilities and a total of 2,511,950 individuals with special needs in the affected region (UNDP Turkey, 2024).

4.1.4 Findings Related to the Fourth Research Question

The place of residence of individuals with special needs is presented in Table 5.

Table 5: Residence of earthquake-affected individuals with special needs

Residence	**f**	**%**
Home	104	100
Total	**104**	**100**

All participants (100%) reported living at home. Tüccar and Yavuz (2023) found that 42% of individuals with special needs experienced damage to their homes due to the February 6, 2023, Kahramanmaraş-Pazarcık earthquake.

4.1.5 Findings Related to the Fifth Research Question

The living arrangements of individuals with special needs are presented in Table 6.

Table 6: Living arrangements of earthquake-affected individuals with special needs

Living With	**f**	**%**
Family	79	76.0
Mother	4	3.8
Father	5	4.8
Brother	1	1.0
Sister	1	1.0
Uncle	1	1.0
Maternal Grandfather	4	3.8
Paternal Grandfather	8	7.7
Others	0	0.0
Total	**104**	**100.0**

The majority of participants (79; 76%) lived with their families. The number of participants living with parents or grandparents was lower compared to those living with the entire family unit.

4.1.6 Findings Related to the Sixth Research Question

Loss experiences of participants during the earthquake are presented in Table 7.

Table 7: Loss experiences of earthquake-affected individuals with special needs

Experienced Loss	**f**	**%**
Yes	22	21.2
No	82	78.8
Total	**104**	**100.0**

Eighty-two participants (78.8%) did not experience any loss, whereas 22 participants (21.2%) reported a loss. Tüccar and Yavuz (2023) reported that 87.3% of individuals with special needs did not experience family loss.

4.1.7 Findings Related to the Seventh Research Question

Participants' reports of who they lost are presented in Table 8.

Table 8: Individuals lost during the earthquake

Relationship	**f**	**%**
Mother	1	1.0
Father	2	1.9
Brother	1	1.0
Sister	2	1.9

Other non-primary relationships	87	83.7
Total	**101**	**97.1**

The majority of losses (87; 83.7%) involved non-primary individuals. Tüccar and Yavuz (2023) found that 56.3% of individuals with special needs experienced loss among close acquaintances.

4.1.8 Findings Related to the Eighth Research Question

The perceptions of participants regarding the **Self-Representation Figure (BTT-SRF)** in the Blob Tree Test are presented in Table 9.

Table 9: Perceptions of Special Needs Individuals Regarding the Self-Representation Figure (BTT-SRF**)**

Group	Figure No.	Perceptions	Frequency (f)
1	1, 3, 6, 7	Effort to overcome obstacles	21
2	2, 4, 11, 12, 18, 19	Sociability, support, friendship, closeness; lack of effort (desire for success without overcoming difficulties)	15
3	5	Fatigue, general weakness, low energy, shyness	5
4	9	Playfulness, indifference	5
5	13, 21	Exclusion, loneliness, anxiety	11
6	8	Loss of interest, withdrawal	5
7	-	Peace, comfort, normal adaptation, balance	21
8	-	Tired of taking responsibility for others, sacrifice	1
9	-	Desire to always be the center of attention	1
10	-	Crisis, loss	5
11	-	Focused on success, leadership, high self-esteem	4

As shown in Table 9, the most frequently selected figures were associated with effort to overcome obstacles and peace, comfort, and balance (21 participants), followed by sociability, support, and friendship (15 participants). Other perceptions included fatigue, anxiety, withdrawal, taking responsibility, desire for attention, experiencing crisis, and high self-esteem or leadership aspirations.

4.1.9 Findings Related to the Ninth Research Question

The perceptions of special needs individuals regarding the Figure Representing the Position of Another Individual (BTT-OPF) are presented in Table 10.

As presented in Table 10, the highest frequencies were associated with sociability, support, friendship, and lack of effort to overcome obstacles (29 participants), effort to overcome obstacles (16 participants), and focus on success, leadership, and high self-esteem (22 participants). Other responses included fatigue, anxiety, withdrawal, playfulness, peace, taking responsibility for others, desire for attention, and experiences of crisis or loss.

Table 10: Perceptions of Special Needs Individuals Regarding the Figure Representing Another Individual (BTT-OPF)

Group	Figure No.	Perceptions	Frequency (f)
1	1, 3, 6, 7	Effort to overcome obstacles	16
2	2, 4, 11, 12, 18, 19	Sociability, support, friendship, closeness; lack of effort (desire for success without overcoming difficulties)	29
3	5	Fatigue, general weakness, low energy, shyness	5
4	9	Playfulness, indifference	2
5	13, 21	Exclusion, loneliness, anxiety	9
6	8	Loss of interest, withdrawal	5
7	10, 15	Peace, comfort, normal adaptation, balance	11
8	16	Tired of taking responsibility for others, sacrifice	1
9	17	Desire to always be the center of attention	2
10	14	Crisis, loss	9
11	20	Focused on success, leadership, high self-esteem	22

4.2 Discussion

The findings of this study highlight the significance of the traumas experienced by individuals with special needs (ISN) following the February 6, 2023, earthquake and the importance of their experiences during this period.

According to the results, the majority of the affected individuals with special needs were in the 11–15 age range, a critical period for psychological and social development. During this stage, identity and self-concept development reach an important phase, and traumatic events such as earthquakes can profoundly affect self-perception (Kaya, 2024). Environmental factors, particularly trauma exposure, can lead to noticeable changes in self-confidence and social bonds among individuals in this age group (UNDP Turkey, 2024). Therefore, providing targeted psychosocial support for this age group is essential to ensure healthy developmental outcomes.

Regarding gender distribution, although the number of male participants was slightly higher, this difference did not appear to create a significant variation in psychological impacts. The literature supports that gender differences do not significantly influence the severity of post-traumatic stress, depression, or anxiety following trauma (Raghavan & Griffin, 2017). Instead, the type of trauma experienced and the availability of support systems play a more decisive role in psychological outcomes (Stough, 2009).

Intellectual disability was identified as the most prevalent type of disability among the participants. Previous studies indicate that individuals with intellectual disabilities are more vulnerable to traumatic events and often face greater challenges in coping with post-disaster stress, anxiety, and depression (Stough, 2009). Providing appropriate support for these individuals during post-disaster adaptation can accelerate recovery processes and positively influence self-concept (Friedman, 2021).

The findings also revealed that the majority of individuals with special needs live with their families. Family support can facilitate psychological adjustment and positively affect self-concept (Kaniasty & Norris, 1993). However, those who experienced loss during the earthquake face the challenge of rebuilding social support networks. This

situation may exacerbate feelings of loneliness and grief, potentially leading to long-term psychological consequences (Silverman *et al.*, 2008).

Results from the Blob Tree Test (BTT) indicated that participants most frequently identified with figures representing effort to overcome obstacles, seeking peace, and the need for social support. These findings suggest that post-disaster, individuals with special needs demonstrate both resilience and a heightened need for social connections.

The desire to be in the position of another figure in the BTT reflected aspirations for leadership and achievement, indicating that despite experiencing social exclusion or loneliness, participants maintain a strong drive for competence and recognition. These results underscore the importance of meeting natural social needs, as emphasized by Yörükoğlu (1998), who highlighted that friendships serve as a critical source of social support and emotional well-being, particularly when family support is insufficient. Lack of meaningful peer relationships can exacerbate psychological difficulties and hinder emotional development.

5. Recommendations

Based on the findings presented above, the following recommendations can be made:

- **Strengthening Psychosocial Support Services:** In the post-disaster period, the scope and quality of psychological support services should be expanded, especially for adolescents with special needs. It is important that these services are designed according to age-specific needs to support emotional recovery and enhance psychological resilience.
- **Developing Gender-Based Approaches:** Considering that disasters can have different impacts based on gender, recovery strategies should be developed with gender sensitivity, addressing the specific needs of both female and male individuals.
- **Establishing Family Support Programs:** Given that most individuals with special needs live with their families, support programs for families should be designed in the post-disaster period. Providing psychological support to family members who have experienced loss is critical for both individual and family recovery processes.
- **Early Intervention and Monitoring Programs for Individuals with Special Educational Needs:** For individuals with specific disabilities, such as intellectual disabilities, early intervention and continuous monitoring programs should be implemented during the post-disaster period. Professional management of the psychological effects experienced by these individuals is essential for their long-term well-being.
- **Increasing Social Awareness:** To support the preparedness of individuals with disabilities for disasters, society-wide educational and awareness programs should be carried out to raise disability awareness in the context of disasters. In this way, the resilience of both individuals and society against disasters can be strengthened.

6. Conclusion

The study findings indicate that most special-needs earthquake survivors are aged 11–15. While male participants slightly outnumber females, this does not significantly impact psychological outcomes. Intellectual disability was the most common condition among participants. The results highlight that the majority of individuals live with their families and identify with figures representing overcoming challenges, seeking peace, and requiring social support. Additionally, the desire to assume leadership and achieve success was observed. Overall, the findings emphasize that special-needs individuals require targeted psychosocial support, particularly when experiencing social exclusion or loneliness.

In this final section, the main findings are concisely reiterated. Only conclusions supported by the study findings should be included.

Acknowledgements
The authors would like to express their sincere gratitude to the Director and staff of the Kahramanmaraş Rehabilitation Center for their valuable support and assistance throughout the research process. We also extend our heartfelt thanks to the teachers who contributed their time and expertise, as well as to the parents of the participants for their cooperation and trust in facilitating this study. People who contributed towards the work in any way for the manuscript preparation, but do not meet the criteria for authorship, should be listed in the acknowledgements section, mentioning their contributions. These also include funding source(s) of each author and describe the involvement of the funding body or organization in the whole work. It is recommended to acknowledge the editor if any manuscript was revised for language corrections. Permissions should be obtained from all those who are acknowledged in this section.

Conflict of Interest Statement
The authors declare no conflicts of interest.

About the Author(s)

Drawing on experience with image analysis and related methods, the author, recognizing the challenges that individuals with special needs may face in verbal self-expression, has facilitated their ability to communicate both experienced and desired emotions and thoughts through the use of pre-applied sociometric assessment tools, prior to verbal articulation.

References

Afet ve Acil Durum Yönetimi Başkanlığı. (2021). *Afetlerde engelli bireylerin korunması rehberi*. Retrieved from https://www.akillisehirler.gov.tr/wp-content/uploads/KapasiteGelistirme/Uygulama_Pdf/akilli_afet_ve_acil_durum_yonetimi_uygulama_rehberlik_klavuzu.pdf

Alkan, V., Şimşek, S., ve Erbil, B. A. (2019). Karma yöntem: Öyküleyici alanyazın incelemesi. *Eğitimde Nitel Araştırmalar Dergisi, 7*(2), 559–58 https://doi.org/10.14689/issn.2148-2624.1.7c.2s.5m

Ciampi, M. C., Gell, F., Lasap, L., & Turvill, E. (2011). *Gender and disaster risk reduction: A training pack*. Oxfam GB. Retrieved from https://policy-practice.oxfam.org/resources/ gender-and-disaster-risk-reduction-a-training-pack-136105/

Creswell, J. W. (2013*). Qualitative inquiry & research design: Choosing among five approaches* (3nd ed., pp. 1-34). SAGE Publications. Retrieved from https://revistapsicologia.org/public/formato/cuali2.pdf

Dilmaç, B. (2022). Determining the levels of anxiety, depression and self-confidence through drawings of children affected by the earthquake. *European Journal of Special Education Research, 8*(1), 1–15. http://dx.doi.org/10.46827/ejse.v8i4.4528

Ferguson, P. M., & Nusbaum, E. (2012). Disability Studies: What is it and what difference does it make?. *Research and Practice for Persons with Severe Disabilities*, *37*(2), 70–80. https://doi.org/10.1177/154079691203700202

Friedman, C. (2021). *Natural supports: The impact on people with intellectual and developmental disabilities' quality of life and service expenditures. Journal of Family Social Work, 24*(2), 115–130. https://doi.org/10.1080/10522158.2020.1861158

Genç, N., ve Yılmaz, G. (2024). Deprem sonrası rehabilitasyon sürecinde geçici rekreasyon alanlarının önemi. *ULS Hols Sağlık, Spor ve Rekreasyon Dergisi, 3*(1),48-105. https://doi.org/10.5281/zenodo.12599966

M., ve Subaşı Yurtçu, A. B. (2024). *Evaluation of interventions for individuals with special needs after an earthquake: Teacher perspective*. *Sakarya University Journal of Education, 14*(2), 288–307. https://doi.org/10.19126/suje.1385785

Kaniasty, K., & Norris, F. H. (1993). A test of the social support deterioration deterrence model in the context of a natural disaster. *Journal of Personality and Social Psychology, 64*(3), 395–408. https://doi.org/10.1037//0022-3514.64.3.395

Karataş, K., & Duyan, V. (2004). Self-esteem and trait-anxiety levels of persons with physical disabilities who live in the earthquake region. *International Journal of Mental Health, 33*(1), 67–80. http://dx.doi.org/10.1080/00207411.2004.11043363

Kaya, E. (2024). Kahramanmaraş depremleri sonrası afeteler bireysel hazırlık düzeyi ve ilişkili faktörlerin imcelememesi. *Gümüşhane Üniversitesi, Sağlık Bilimleri Fakültesi, 13*(4), 1942-1955. https://doi.org/10.37989/gumussagbil.1411272

Kaya, Y., ve Öz, F. (2020). Ergenlerin benlik algısı üzerinde algılanan ebeveyn tutumlarının ve bağlanma stillerinin rolü: Bir yapısal eşitlik modellemesi. *Psikiyatri Hemşireliği Dergisi*, *11*(2), 106–114. doi: 10.14744/phd.2020.74429

Kiełb, K., Bargiel-Matusiewicz, K. M., & Pisula, E. (2019). Posttraumatic stress symptoms and posttraumatic growth in mothers of children with intellectual disability – The role of intrusive and deliberate ruminations: A preliminary report. *Frontiers in Psychology, 10,* Article 2011. 2(7) 53-61. https://doi.org/10.3389/fpsyg.2019.02011

Mills, G. E., & Gay, L. R. (2021). Education research: Competencies for analysis and applications. *Pearson PLC.* 12(4), 147-152. Retrieved from https://yuli-elearning.com/pluginfile.php/4831/mod_resource/content/1/Gay-E%20Book%20Educational%20Research-2012.pdf

Mohammadinia, L., Ebadi, A., Malekafzali, H., Allen, K. A., & Sharif Nia, H. (2019). The design and psychometric evaluation of the Adolescents' Resilience in Disaster Tool (ARDT-Q37): A mixed-method study. *Heliyon, 5*(7), 119-218. Retrieved from https://doi.org/10.1016/j.heliyon.2019.e02019

Norris, F. H., Friedman, M. J., & Watson, P. J. (2002). *60,000 disaster victims speak: Part II. Summary and implications of the disaster mental health research. Guilford Press Periodicals Journals, 65*(3), 240–260. https://doi.org/10.1521/psyc.65.3.240.20169

Özdemir, G. (2024). *Asrın felaketi olarak nitelendirilen 6 Şubat depremlerinin eğitim ve öğretim süreçlerine yansımaları*. *New Era International Journal of Interdisciplinary Social Research*,1(5), 46-55. http://dx.doi.org/10.5281/zenodo.11079924

Park, E.Y. (2025). Change in self-esteem trajectories among adolescents and adults with intellectual disabilities. *Behavioral Sciences, 15*(5), 665 https://doi.org/10.3390/bs15050655

Raghavan, R., & Griffin, E. (2017). Resilience in children and young people with intellectual disabilities: a review of literature. *Advances in mental health and intellectual disabilities*, *11*(3), 86–97. https://doi.org/10.1108/AMHID-01-2017-0002

Silverman, W. K., Ortiz, C. D., Viswesvaran, C., Burns, B. J., Kolko, D. J., Putnam, F. W., & Amaya-Jackson, L. *(2008). Evidence-based psychosocial treatments for children and adolescents exposed to traumatic events. Journal of Clinical Child & Adolescent Psychology, 37*(1), 156–183. https://doi.org/10.1080/15374410701818293

Stough, L. (2009). The effects of disaster on the mental health of ındividuals with disabilities: Mental health and disasters. *New York: Cambridge University Press, 85,* 64-276. http://dx.doi.org/10.1017/CBO9780511730030.015

Shao, J. Shen, J. Zhang, Q. & Lin, T. (2013). Meaning in life and well-being of older stroke survivors in Chinese communities: Mediating effects of mastery and self-esteem,

Scientific Research an Academic Publishing, 5(4). 743-748. http://dx.doi.org/10.4236/health.2013.54098

Tüccar, E., ve Yavuz, E. (2023). Kahramanmaraş Pazarcık depreminin (6 Şubat 2023) bireyler üzerindeki etkilerinin psikososyal yönden incelenmesi. *Journal of Migration and Political Studies, 1*(1), 54–77. Retrieved from https://dergipark.org.tr/tr/pub/mipos/issue/79124/1364795

Birleşmiş Milletler Kalkınma Programı-UNDP. (2024). *Depremden etkilenen bölgelerde yaşayan engelli bireylere yönelik ihtiyaç analizi raporu. Dışişleri Bakanlığı Kore Cumhuriyeti.* Retrieved from https://www.undp.org/tr/turkiye/publications/depremden-etkilenen-bolgelerde-yasayan-engelli-bireylere-yonelik-ihtiyac-analizi-raporu

United Nations Office for Disaster Risk Reduction-UNDRR. (2023). *Sendai Framework for Disaster Risk Reduction 2015–2030*: Caribbean Regional Workshop on Integrated Disaster Risk. Reduction and Climate Change Adaptation. Port of Spain. Retrieved from https://www.undrr.org/media/88930/download?startDownload=20250727

Wallen, N. E., & Fraenkel, J., (2013). *Educational research: A guide to the process* (2th ed.). Routledge. 568, https://doi.org/10.4324/9781410601001

Yıldırım, A., ve Şimşek, H. (2021). *Sosyal bilimlerde nitel araştırma yöntemleri*. *Araştırma yöntemlerinde dönüşümler ve nitel araştırma*. (12. Baskı, ss.19-30) içinde. Seçkin Yayıncılık.

Yıldırım, F. (2024). Özel eğitim bölümü öğrencilerinin doğal afet okuryazarlık düzeylerinin çeşitli değişkenler açısından incelenmesi. *Mehmet Akif Ersoy Üniversitesi Eğitim Fakültesi Dergisi, 70*, 144–165. https://doi.org/10.21764/maeuefd.1405004

Türkiye Cumhuriyeti Aile ve Sosyal Hizmetler Bakanlığı. (2023). *Engelli ve Yaşlı İstatistik Bülteni,* Engelli ve Yaşlı Hizmetleri Genel Müdürlüğü. Retrieved from https://aile.gov.tr/media/135432/eyhgm_istatistik_bulteni_nisan_23.pdf

Yörükoğlu, A. (1998). *Çocuk ruh sağlığı: Çocuğun kişilik gelişimi, yetiştirilmesi ve ruhsal sorunları.* Özgür Yayınları.