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# **Vulnerable Publics in the 2023 Türkiye Earthquake Disaster: A Study on Communication-Centred Experiences of Persons with Disabilities**

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**Abstract.** On 6 February 2023, two major earthquakes occurred in Türkiye, impacting eleven provinces and resulting in a death toll exceeding 50,000. This study explores the communication-related experiences of persons with disabilities and their families in the aftermath of the earthquakes, focusing on the Antakya region of Hatay. The research findings, derived from semi-structured interviews with caregivers, contributions from NGOs, and insights from health professionals, underscore the communication gaps concerning disaster preparedness for this vulnerable publics. The research indicates a lack of accessible risk information, personal disaster plans and participation in disaster preparedness. The study provides recommendations for future disaster risk communication efforts, with a focus on meeting the communication needs of persons with disabilities.

**Keywords:** Earthquake, disaster risk reduction, risk communication, persons with disabilities, vulnerability

## **1. Introduction**

On 6 February 2023, two earthquakes of Mw: 7.7 and Mw: 7.6 with epicentres in Pazarcık (Kahramanmaraş) and Elbistan (Kahramanmaraş) occurred at 04:17 and 13:24 respectively in Türkiye (AFAD, 2023). The earthquakes had an impact on eleven provinces, including Adana, Adıyaman, Diyarbakır, Elazığ, Gaziantep, Hatay, Kahramanmaraş, Kilis, Malatya, Osmaniye and Şanlıurfa. According to official figures, the total number in the death toll was 50,783 and the number of injured was 115,353 (AFAD, 2023: ii). The earthquakes that hit Türkiye and Syria resulted in one of the most devastating disasters to impact the region in recent times. The objective of this study is to provide insight into the communication-based experiences of persons with disabilities in the earthquake that occurred in Türkiye on February 6, 2023.

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## **2. Literature Review**

The exact number of persons with disabilities and their families directly and indirectly affected by these earthquakes is not known. According to United Nations Convention on the Rights of Persons with Disabilities, "persons with disabilities include those who have long-term physical, mental, intellectual or sensory impairments which in interaction with various barriers may hinder their full and effective participation in society on an equal basis with others" (CRPD, 2006). Despite the absence of precise data, it is evident that the population with disabilities affected by earthquakes is substantial, given the diverse types of impairments.

Disasters affect persons with disabilities disproportionately, having a greater impact on vulnerable groups. According to United Nations Office for Disaster Risk Reduction, vulnerability is defined as "the conditions determined by physical, social, economic and environmental factors or processes, which increase the susceptibility of a community to the impact of hazards" (UNDRR, 2017). In emergencies and disasters, persons with disabilities have the same rights and needs as any other citizen but face additional barriers and risks that require specialized responses (ECFF, 2024: 8). A substantial body of research has indicated that persons with disabilities are disproportionately susceptible to elevated risks of mortality, injury and medical complications in the event of disasters or emergencies. This heightened vulnerability is further compounded by the challenges these individuals face in accessing assistance from search and rescue teams or volunteers, which can result in prolonged recovery periods (ISMAP, 2023: 13). It is therefore critical for societies to be aware of the difficulties encountered by persons with disabilities during disaster and emergency situations. In turn, this awareness should be reflected in the preparedness plans for such situations (Kurt, 2019).

## **3. Methodology**

The study explores the communication-related experiences of the persons with disabilities and their families in the 6 February 2023 earthquake disaster in Türkiye. This study, which is the initial output of a larger project, consists of ten semi-structured interviews with families, living in Hatay in Antakya region, of persons with mental, sensory and physical impairments who are completely dependent on their families for care and were most affected by the 2023 earthquake. Ethical approval of this study was obtained from Ankara University Ethics Committee<sup>2</sup>. The participants in the study were predominantly mothers from low socio-economic groups, aged between 31 and 64, who were responsible for the care of persons with disabilities. Additional information was gathered from two non-governmental organizations (NGOs) that were working with these vulnerable publics and two frontline health specialists. During the interviews, the following questions were addressed: (1) Did these persons with disabilities and their families have any personal preparedness for disasters such as earthquakes? (2) What challenges have they encountered in accessing information regarding risks and measures in earthquake disaster?

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<sup>2</sup> Ankara University Ethics Committee approval Date 04/10/2024 Number 19/268

#### **4. Findings and the Implications for Future Disaster Risk Communication Efforts**

The Sendai Framework for Disaster Risk Reduction 2015-2030 has added a focus on people with disabilities in disaster risk reduction efforts. In addition, the UN Sustainable Development Goals have also provided a basis for dealing with the issue (UN Department of Economic and Social Affairs, 2024). Therefore, disaster risk communication studies for persons with disabilities have been shaped by international practice and literature on the subject, together with works structured according to the Sendai Framework. Türkiye has also taken steps in this regard. Nevertheless, in this study, through in-person interviews, it is identified that persons with disabilities and their families possess limited risk information concerning disasters such as earthquakes and, consequently, they are not familiar with the preparedness plans in the event of such an emergency. In this respect, our findings are consistent with the international literature. According to the UNDRR 2023 Global Survey on Persons with Disabilities and Disasters, globally 84 per cent of persons with disabilities reported not having a personal disaster preparedness plan and 56 per cent reported not being aware of or having access to disaster risk information in accessible formats in their communities (UNDRR 2023:10).

NGOs dedicated to supporting persons with disabilities have made notable contributions, especially in organizing communication efforts regarding the needs of the affected population. These contributions have played an important role in facilitating the recovery process. By forming a network of disability NGOs, they have assisted the identification of needs and facilitated the delivery of aid. Despite their active roles in the aftermath of disasters, NGOs' involvement in activities related to disaster risk prevention has been limited and it is evident that this involvement should be strengthened. Several researchers emphasize the importance of including people with disabilities and civil society organizations (CSO) in all stages of the disaster management cycle and disaster risk reduction efforts (Shaw and Izumi, 2014).

In the light of the interviews, the following recommendations are suggested:

1- Persons with disabilities, together with their caregivers, should be considered as active components of the disaster risk communication process.

2- Disaster awareness and preparedness activities should be inclusive, taking into account different types of disability. To this end, accessibility of risk information should be ensured. For example, "easy-to-read" methods and "alternative communication languages", which were not common in the education of people with special needs in Turkish, should be explored.

3- In order to assist personal disaster plans for persons with disabilities and their caregivers, trainings and contents should be prepared, disseminated and made accessible. This information should cover earthquake kits, initial precautions for people with disabilities and special evacuation plans.

4- Persons with disabilities and their caregivers should be informed of the contact details of the authorized organizations they should call in the event of a disaster and how to reach these organizations. This can be done through a dedicated communication line, a virtual application, etc. These communication channels should be multilingual and should be accessible for different

disability needs. Establishing a participatory, inclusive and symbiotic disaster risk communication plan in a wide spectrum is crucial (from mukhtars to local governorships, public institutions and organizations, special education institutions and rehabilitation centres).

5- Developments in new communication technologies have great potential for disaster risk communication with persons with disabilities. Artificial intelligence technologies and digital tools can be integrated into the communication process. The accessibility of these digital applications for different types of disabilities should be considered.

6- In countries such as Türkiye, where the care of people with disabilities is mainly provided at home and by mothers, the socio-economic characteristics of women should be taken into account when developing the risk information content. Factors such as women's low access to basic education and/or limited experience of participation in social life increase the communication barriers faced by the families of persons with disabilities. When designing disaster risk communication activities, measures should be taken to address the communication barriers. For example, training in disaster management, disaster communication and disaster/risk planning can be included in open secondary school programmes.

7-Educational institutions and rehabilitation centres where persons with disabilities are educated should be considered as an important tool for the disaster risk training of caregivers. In addition, Whatsapp/Telegram/Facebook groups created by mothers or caregivers and specialized teachers may facilitate cooperation during the disaster.

8- Staff and institutions providing education to persons with disabilities should be involved in the disaster risk reduction communication process. Disaster risk communication training with teachers in these educational institutions can be regularly renewed and people's knowledge on the subject can be kept alive.

9- A specialized group of staff with expertise in disability inclusive emergency management, involved in search and rescue, intervention and rehabilitation processes, should be organized and trained in the communication needs of these populations.

10- Disaster risk communication activities within disaster risk reduction programmes should take into account the unique structure and characteristics of different regions and, in this context, tailor risk information communication materials. In order to achieve this inclusiveness and integration, it is important to involve experts and competent people who have a good knowledge of the region in disaster risk reduction activities.

11- NGOs and organizations of people with disabilities should be included in the process as one of the key stakeholders and active participants in the disaster management cycle so that their needs can be included in all plans, programmes, protocols, preparations and implementations of disaster risk reduction while the inclusiveness of activities should be strengthened.

## 5. Conclusion

As a conclusion, it is imperative to establish effective communication channels and mechanisms among persons with disabilities, their families, healthcare professionals providing care for them, public authorities, healthcare services and non-governmental organizations. This is essential to foster dialogue, interaction, and cooperation in disaster risk reduction and risk communication efforts. Furthermore, it is crucial to encourage the development of inclusiveness, accessibility, and participation of these mechanisms.

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