




Health Services Vocational College

The importance of surviving vulnerable groups in natural disasters: A review article

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Abstract

Disasters and emergencies have been increasing all over the world. Natural disasters are extreme events generally caused by abrupt climate change and other environmental factors. Turkey has repeatedly suffered from natural disasters. Due to its natural characteristics, socio-economic and cultural structure, Turkey is a country where earthquakes, floods and flood disasters are seen frequently and widely. Earthquakes are a devastating phenomena of nature, causing significant destruction and extensive damage. Based on the lessons learned from the experience, the problems faced by vulnerable groups in natural disasters were reviewed.

Keywords: Disasters, Earthquakes, Vulnerable groups.

Introduction

Disasters also affect the general level of morbidity in a district because of either interruption of normal health care services or of spraying or other disease control measures. It has been reported that 510,837 deaths and 3.9 billion people were affected by 6,681 natural disasters in the world between 2000 and 2019 (Kharb et al., 2022). Turkey ranks 45th among 191 countries in the Global Risk Index. It is among the countries in the “high risk” group with an index score of 5.0. Since 1900, 77 major earthquakes have occurred in our country. For this reason, it ranks fourth among countries in terms of earthquakes. In our country, 21,841 deaths occurred in the major disasters that occurred between 1990 and 2017. When evaluated according to disaster types, death due to earthquake is 19,998. This is the disaster earthquakes that cause the most deaths in our country (AFAD, 2020). Recently, there have been two devastating earthquakes in Turkey. In two earthquakes with magnitudes of 7.8 Mw (± 0.1) and 7.5 Mw, which occurred on February 6, 2023, nine hours apart, with epicenters in Pazarcık and Ekinözü districts of Kahramanmaraş, respectively; According to official figures, at least

50,096 people in Turkey (AFAD, 2023) and at least 8,476[people in Syria] (UN, 2023). lost their lives and more than 122 thousand people were injured in total. A total of 20 people lost their lives due to the floods, which were effective in the southeast of Turkey on March 15, 2023, and especially affected Adıyaman and Şanlıurfa as a result of heavy rainfall. It was reported that 1 person in Adıyaman and 1 person in Şanlıurfa were missing and 3,154 people's residences, workplaces, vehicles and miscellaneous household goods were damaged (DHA, 2023; NTV, 2023). Children, infants, disabled individuals, chronically ill individuals and animals are vulnerable in a disaster (Weiner et al., 2006). They need to rely on others to take care of their needs, both during and after the disaster. Moreover, pediatric disaster victims often require special care differing from the needs of adult disaster victims (Gnauck et al., 2007).

We have included the impressive news of a few of the vulnerable groups rescued in the Kahramanmaraş earthquakes and flood disasters. The first of these is the baby Mohammed. Two-month-old baby Muhammed was seen sucking his hand while being pulled out of debris (Kocalar 2023). On the other hand, in

Kahramanmaraş, a 13-year-old boy was rescued from the rubble 55 hours after the earthquake, holding a budgie (Mazi and Çalı, 2023). 41-year-old mother Neslihan Karadeniz and her children Fatma (21), Münire (15) and Ramazan (7) were brought out from the rubble after 108 hours by firefighters in Hatay (AAS, 2023). 12 Year Old Osman was rescued fromt wreck after 260 hours In Hatay (Nagihan, 2023). Veterinarians from all over Türkiye rushed to treat rescued animals. Over 400 cats and dogs rescued after the Feb. 6 deadly earthquakes were treated at animal shelters by veterinarians from all over the country in Kahramanmaraş (Daily Sabah and DHA, 2023). This paper provides an overview of vulnerable victims in the 2023 Kahramanmaraş earthquakes and flood disasters and our aid efforts and the issues raised.

The disabled and natural disasters

More than one billion people, or 15% of the total population, are considered disabled (WHO, 2011). People with disabilities are four times more likely to die in disasters than people without disabilities (UNESCAP, 2017). The disabled are among those who are significantly disadvantaged and therefore disproportionately affected by

natural disasters. In addition, they are disadvantaged in accessing resources before, during, and after natural disasters (Ton & Adamson, 2021). The social, economic, and institutional challenges that they face in their daily lives are at the root of their high vulnerability and inadequate preparedness for emergency situations (Calgaro, Villeneuve, & Roberts, 2020; Organization, 2011). Disruptions in basic support services for those with disabilities and deficiencies in emergency registration systems make it difficult to meet their needs during and after disasters and to access external support. This exacerbates the precarious situation in which they find themselves after natural disasters (Hay & Pascoe, 2019; Smith, Simard, Twigg, Kett, & Cole, 2017). In disaster situations, the disabled are at risk of long-term displacement because they may be left behind or have no access at all, because their housing needs are not met, or because they do not receive adequate financial assistance (Ito, 2014).

Problems also arise during disasters, such as lack of access to medications for the disabled, disruptions in the caregiver network, and transportation difficulties during evacuation (Malmin & Eisenman, 2023). Therefore, disaster management

for vulnerable disabled people is needed to ensure that they receive more attention after a disaster (Eisenman et al., 2009; Phibbs, Good, Severinsen, Woodbury, & Williamson, 2015). People who have disabilities that are easily identifiable such as orthopaedic problems, blindness, deafness, etc. are more likely to get assistance from others, whereas those who experience a disability that impairs their cognitive function after a disaster might not get assistance until their needs become obvious to others (Greenspan, Switzky, & Woods, 2011).

If their needs cannot be identified by disaster authorities, people with cognitive disabilities are more likely to experience delays in getting the help they need (Türk, 2022). On the other hand, respondents might give an incorrect description of the nature of a person's disability, which could result in incorrect and incomplete claims being filed in emergency situations. This is because the identity, diagnosis, and degree of disability of the disabled person may not be established, and important information such as the medications used for treatment may not be readily available (Tonak & Kitiş, 2020).

The elderly and natural disasters

Unfortunately, two-thirds of the world's older people live in developing countries, which are particularly vulnerable to disasters, and this proportion is expected to rise to 80 per cent by 2050 (Joseph & Jaswal, 2021). In situations like disasters, older adults are among the most vulnerable groups (Oostlander, Champagne-Poirier, & O'Sullivan, 2022). They are one of the most neglected populations in society during and after disaster events (Timalsina & Songwathana, 2020). They are an age group that is particularly vulnerable to environmental changes that affect the standard of living and health of older people (Fauzan et al., 2020). Disasters can, directly and indirectly, affect the physical and mental health of the elderly (World Health Organization, 2009). It has been argued that the elderly are not well prepared for emergencies, despite the fact that they belong to a demographic that is more susceptible to the effects of natural catastrophes. (Adepoju, Herrera, Chae, & Han, 2023).

When it comes to evacuating potentially dangerous areas in a crisis, older people have some challenges that younger people do not. These deficiencies are due in part to a variety of factors, including

age-related physical limitations, lack of communication, limited transportation options, and few economic opportunities for the aging population (Adepoju et al., 2023). As older people age, they may experience physical regression, inability to receive adequate services, age discrimination, disability, changing dynamics and family systems in the home where they live, increased poverty, low physical strength, and weak immune systems. Even situations such as dependence on others, living alone, and limited access to transportation can be observed. For these reasons, the negative impact of disaster situations on the physical, mental, and social well-being of older people increases (Timalsina & Songwathana, 2020).

Compared to the general population, older adults are reportedly more vulnerable to disasters. Factors that exacerbate this include age-related physical, cognitive, economic, and psychosocial problems, as well as decreased sensory awareness and chronic health conditions. These factors reduce both the likelihood of disaster preparedness and the ability of older adults to adapt during a disaster (Baker, Cormier, & Baker, 2014). For these

reasons, older adults may be considered a high-risk group in disaster situations.

People with non-communicable diseases and disasters

Noncommunicable diseases (NCDs) are among the leading causes of death worldwide, accounting for about 70% of deaths (UNISDR, 2009). Unexpected events, such as natural disasters, are associated with an increase in the prevalence of noncommunicable diseases (Nishizawa, Hoshide, Shimpo, & Kario, 2012). According to published research, there is a link between the stress caused by natural disasters and wars and the subsequent increase in cases of impaired fasting blood glucose (IFG) and diabetes mellitus (DM) among survivors (An et al., 2014; Ebling, Majnarić-Trtica, Gmajnić, Ebling, & Vranjes, 2007; Karrouri, 2014). Just as natural disasters can lead to an increase in the prevalence of non-communicable diseases, so too can the treatment of such diseases become more difficult in the aftermath of a disaster (Crook, Arrieta, & Foreman, 2010). Strengthening and expanding the range of NCD diagnoses included in disaster management planning is critical. It is also important to focus specifically on children and adolescents, as these age groups present

significant opportunities for interventions to reduce future NCD morbidity (Ngaruiya et al., 2022). Disasters can lead to severe exacerbations of bronchospasm as patients with COPD require supplemental oxygen or patients with asthma are exposed to increased allergen exposure and humidity. For patients with such respiratory conditions, this can often lead to emergencies. Furthermore, patients with conditions such as diabetes need to keep their insulin cool and have certain dietary requirements. As a result, meeting all of these needs can be challenging during times of natural disaster (Crook et al., 2010).

Conclusion

In developing plans for disaster preparedness and response to extraordinary natural events such as disasters, the needs of the most vulnerable should be considered. To prevent secondary health problems that may occur later as a result of disasters, the needs of these vulnerable people should be given special consideration in disaster management.

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