Inevitable Disaster for Türkiye: Earthquake and Nursing

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Abstract:
Disasters are natural, technological, or human-induced events that cannot be dealt with with the available means that cause physical, economic, and social losses in societies and nations. The most common disaster is an earthquake. Earthquake is vibrations arising from the incoming nuclei formed in the earth's crust that are felt in the upper layers of the earth by spreading in waves. The stronger the earthquake, the more destructive it is. It causes loss of life and property in individuals as soon as many people occur, especially earthquakes. To minimize the losses in this situation, the concept of disaster definition was introduced for nurses, who are professional members of the health profession. Disaster visualization: She is a disaster manager with knowledge of the nursing profession and a multidisciplinary team. The roles of images in disaster situations; pre-disaster, disaster moment, post-disaster, and pictures. Before the disaster, It is the preparation stage for the cells of the disaster before the disaster occurs. moment of disaster; Depending on the realization of the disaster, life-saving, first aid and emergency response are at the forefront. This study aims to find the knowledge of the occupation type related to the determination of the roles, duties, and responsibilities of the nurses, who are health professionals, in the earthquakes that occurred in Turkey. The extension of the courses in the field of earthquakes to the undergraduate programs of nurses, the holding of sessions such as congresses, symposiums, interviews, and panels with the field guarantees in-service support to the employees from the top positions, including their initiatives at the beginning.

INTRODUCTION
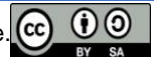
Disasters are natural, technological, or human-induced events that cannot be dealt with with the available means that cause physical, economic, and social losses in societies and nations. The most common disaster is an earthquake. Earthquake is vibrations arising from the incoming nuclei formed in the earth's crust that are felt in the upper layers of the earth by spreading in waves. The stronger the earthquake, the more destructive it is. It causes loss of life and property in individuals as soon as many people occur, especially earthquakes. To minimize the losses in this situation, the concept of disaster definition was introduced for nurses, who are professional members of the health profession. This study aims to find the knowledge of the occupation type related to the determination of the roles, duties, and responsibilities of the nurses, who are health professionals, in the earthquakes that occurred in Turkey.

DISCUSSION

Disaster; They are natural, technological, or human-based events that cannot be dealt with with the available means that cause physical, economic, and social losses in societies and nations (Altay and Green, 2006; Yasin et al.,2009; AFAD,2011; Kadıoğlu,2011). The most common disaster is an earthquake. Earthquake; vibrations that occur due to fractures in the earth's crust spread as waves and shaking are felt in the upper layers of the earth (Shaluf and Ahmadun, 2006; Istanbul AFAD, 2009; Boğaziçi University Kandilli Observatory and Earthquake Research Institute, Last accessed 14 February 2023). Earthquakes of different magnitudes occur at frequent intervals within a year (Xiong et al., 2021). The stronger the earthquake, the more destructive it is (Tzeng et al., 2007). To provide the analysis of the earthquake, stations that measure and analyze the earthquake, called seismographs, were produced (Yi and Özdamar, 2007). Many earthquakes with high destructiveness have occurred over the years in Turkey, most of which are on the earthquake fault line. There are three active fault lines in Turkey, namely the North Anatolian Fault, the East Anatolian Fault, and the West Anatolian Fault (Yildiz et al.,2020; Günaydin et al., 2021).

In Turkey, the "Great Istanbul Earthquake" with a magnitude of 7.2 on September 10, 1509, the "Eastern Izmir Earthquake" with a magnitude of 7.5 on February 23, 1653, the "Anatolian Earthquake" with a magnitude of 8 on August 17, 1668, "Izmir Earthquake" with a magnitude of 7, "Chios Earthquake with a magnitude of 7.3" on April 3, 1881, "Istanbul Earthquake" with a magnitude of 7 on July 10, 1894, "Erzincan Earthquake" with a magnitude of 7.9 in 1939, and the "Çaldıran Earthquake" in 1976 7.5 magnitude, "Gölcük (Kocaeli) Earthquake" 7.4 magnitude on 17 August 1999, and the "Duzce Earthquake" that occurred two months after the earthquake that was named as the longest lasting earthquake, 7.2 magnitude, "Bingöl Earthquake" 6.4 magnitude in 2003, 2011' In the same year, "Van Earthquake" with a magnitude of 7.2, "Elazığ Earthquake" with a magnitude of 6.8 in 2020, "İzmir Seferihisar Earthquake" with a magnitude of 6.6, and finally on February 6, 2023, two earthquakes with a magnitude of 7.7 and 7.6 occurred in Kahramanmaraş (AFAD, Last accessed: February 14, 2023).

Prevention of the occurrence of the disaster, reduction of its severity, elimination of destructive features, etc. Many organizations have been established from the past to the present due to reasons such as These; Hospital disaster plan (HAP) was published as a regulation on 20 March 2015 in Turkey. Every year, the HAP is updated by the team, including nurses, and sent to the relevant provincial health directorates until February 1 (Taşkıran and Baykal, 2017). Organizations such as FEMA (Federal Emergency Management Agency), EMERCOM of RUSSIA, EPC (Emergency Preparedness Canada), UNDP (United Nations Development Program), and ICRC (International Committee of the Red Cross) are exemplary health institutions dealing with disasters in other countries. SAKOM (Health Disaster Coordination Center) aims to maintain the health organization effectively and continuously in disasters under the Ministry of Health, General Directorate of Emergency Health Services. UMKE (National Medical Rescue Team) is a volunteer-based organization in our country that consists of health personnel in disasters since 2003. The Red Crescent was founded on June 11, 1868, during the reign of the Ottoman sultan, Sultan Abdulaziz, under the name of the "Ottoman Wounded and Sick Soldiers Aid Society". On April 14, 1877, the name was changed to "Ottoman Red Crescent Society". Hilal-i Ahmer Society carried out the treatment with mobile hospitals in the Ottoman-Russian War of 1877-1878, and a significant decrease was achieved in mortality and morbidity rates with effective care. In the event of a disaster such as war, the importance of social and medical aid organizations such as the Red Crescent Society has been understood. In 1923, the name was changed to "Turkish Red Crescent Society", in 1935" and in 1947 "Turkish Red Crescent Society" (Kalanlar and Kubilay, 2015).

Disaster nursing; is the knowledge of the nursing profession and the management of the disaster process together by a multidisciplinary team (Ohara et al., 2009). The roles of the nurse in disaster situations; are pre-disaster, disaster, post-disaster, and recovery (Vatan and Salur, 2010; Olchin Krutz et al., 2012). Before the disaster; It is the preparatory stage to reduce the effects of the disaster before the disaster occurs (Murad et al., 2012). Disaster training of personnel and provision of necessary equipment are included in this stage. moment of disaster; Depending on the occurrence of the disaster, life-saving, first aid and emergency response are at the forefront (Moghaddam et al., 2014). In individuals after the disaster; physiological (fatigue, nausea-vomiting, headache, excessive sweating, fine motor tremors, tremors, tics, teeth grinding, muscle aches, and dizziness), cognitive (memory loss, difficulty concentrating, shortening of attention span, inability to name objects, inability to make decisions, inability to calculate), emotional (anxiety, feeling of not being able to cope with events, depression, guilt) and behavioral (sleep disorders, crying easily, substance use, excessive anxiety, inability to perform rituals, not leaving the scene) symptoms are observed (Hsu et al., 2002; Murad et al., 2012). It is important to ensure triage at this stage. triage; It is the probability of survival of individuals damaged by the equipment at hand (Eryılmaz and Dizer 2007; Türkdemir 2016).

The letter scale used by NATO (North Atlantic Treaty Organization) for triage is classified into four stages. T1 (first priority-red): It is the class that includes individuals whose vital functions are in distress and require urgent intervention. T2 (secondary priority-yellow): Individuals in need of urgent intervention whose vital functions may remain stable for a short time. T3 (Green): It is the classification in which individuals with minor injuries are evaluated. T4 (Black): It is the classification of individuals who have lost their vital functions (URL1,2017). The recovery phase aims at restoring the living conditions of the disaster-stricken society. The recovery period is the period of restructuring and rehabilitation. In this context, it is very important for the recovery phase for the nurses, who are health professionals, to intervene in a short time to the signs and symptoms of trauma that may occur in the physical, emotional, behavioral, and social aspects of the individuals before, during and after the earthquake.

CONCLUSION

The possibility of an earthquake in Turkey is an undeniable fact. Nurses, who are health professionals, have an important place before, during, and after the earthquake with their characteristics. Looking at the literature, it is seen that nurses have a lack of knowledge about earthquakes and they do not receive enough training on this subject. It is recommended to add courses in the field of earthquake to the undergraduate programs of nurses, to conduct sessions such as congresses, symposiums, interviews, and panels specific to the field, and to provide in-service support to working nurses from higher positions, especially the institution they work for.

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CONFLICT OF INTEREST

The authors declare no conflict of interest.

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