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SHORT COMMUNICATION

The earthquakes in Turkey and their effects on nursing and community health

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Abstract

Background: Severe damage was experienced in 10 provinces in Turkey, and the north of Syria, with the earthquakes that hit Kahramanmaraş at midnight and afternoon on February 6, 2023.

Aim: The authors aimed to give brief information to the international nursing community about the situation related to earthquakes in the aspects of nurses.

Conclusion: These earthquakes caused traumatic processes in the affected regions. Many people, including nurses and other healthcare professionals, died or were injured. The results demonstrated that the required preparedness had not been applied. Nurses went to these areas voluntarily or on assignment and cared for individuals with injured. The universities in the country passed to distance education because of the shortage of safe places for victims. This situation also negatively influenced nursing education and clinical practice by interrupting in-person education one more time after the COVID-19 pandemic.

Implications for nursing and nursing policy: Since the outcomes show a need for well-organized health and nursing care, policymakers may consider getting nurses' contributions to the disaster preparedness and management policy-making processes.

KEYWORDS

Disaster, earthquakes, nursing, Turkey

INTRODUCTION

Two earthquakes occurred within nearly 10 hours in Kahramanmaraş on February 6, 2023 (Monday), Turkey. The first was of 7.8 magnitude in the Pazarcık district, and the second was of a 7.5 magnitude in the Elbistan district. These two severe earthquakes caused destruction in Kahramanmaraş, Hatay, Gaziantep, Osmaniye, Malatya, Adana, Diyarbakır, Şanlıurfa, Adıyaman, Kilis, and Elazığ provinces around Kahramanmaraş and in North Syria. Although both earthquakes occurred in Turkey, they were felt in Syria, Iran, and Iraq (International Charter Space & Major Disasters, 2023). Although Turkey is faced with natural disasters, such as earthquakes and floods (AFAD, 2018) due to the It's geography, these earthquakes showed that the required

preparedness was not demonstrated. Thus, the Disaster and Emergency Management Authority (AFAD) declared thousands of people dead (50,096 in Turkey and nearly 4,500 in Syria) and injured (158,165 in Turkey and 5,025 in Syria) in Turkey (Figure 1) and Syria (AFAD, 2023; WHO, 2023).

LEGISLATIONS ON DISASTER PREPAREDNESS AND MANAGEMENT IN TURKEY

When the historical process of legal regulations on disasters in Turkey was analyzed, the first studies on this subject were carried out after the earthquake in Erzincan in 1939. The first law related to disasters was enacted in 1959 (Law no: 7269). There

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FIGURE 1 A photograph of a healthcare team transporting the injured survivors by helicopter.

was no noteworthy regulation in Turkey until 1999 when the earthquake Marmara Region occurred on August 17, 1999. This earthquake affected millions of people, killed thousands of people, and caused great economic loss. The earthquake, which affected not only the Marmara Region with its consequences but also the whole country, led to the necessity to work seriously on disaster management. Subsequently, several new legal regulations were put into effect (Kemaloğlu, 2015). The organizations with roles and responsibilities in disaster management in Turkey have been examined. Because the units functioning under different ministries cannot work effectively, efficiently, and sufficiently, Law No. 5902 on the Organization and Duties of the Disaster and Emergency Management Presidency was adopted by the Parliament. With this regulation, the units previously working under different ministries were brought together under the AFAD (AFAD, 2015).

ROLES OF NURSING IN DISASTER PREPAREDNESS AND MANAGEMENT, AND THE SITUATION IN TURKEY

The nursing profession plays a critical role in coping with the adverse effects of disasters (Li et al., 2015). However, getting those roles for nurses requires evidence-based knowledge of assessment, triage, and support methods. Moreover, since they

may be rescuing, caring, training, counselling, and managing, they need to be fully trained and prepared for disaster management (Taşkiran & Baykal, 2019; Zhang et al., 2018). Thus, the International Council of Nursing (ICN) published “A Framework for Disaster Nursing Competencies” and, after 10 years, the Core Competencies in Disaster Nursing. Based on these documents, all nurses working in staff or managerial positions, general professional nurses or advanced/specialized nurses, and in clinical or academic settings should focus on improving nurses’ professional skills in eight domains, such as preparation and planning, communication, incident management systems, safety and security, assessment, intervention, recovery, and law and ethics (ICN, 2009, 2019).

A study in Turkey found that Turkish nurses were not ready for disasters (Taşkiran & Baykal, 2019). Although nurses knew the importance of being trained and competent for disasters, they did not feel capable or confident. The study also recommended strategies to improve the nurses’ disaster preparedness and response skills by establishing disaster committees that include nurses.

There was a gap in integrating the nursing and healthcare services into the disaster management protocols before the Kahramanmaraş earthquakes. Harmancı Seren (2019) stated the absence of integration of healthcare services into the disaster management process and the importance of establishing national and institutional policies. Taşkiran and Baykal (2019) also concluded that there were no clear roles and responsibilities for nurses in nursing law and directives, and they recommended revision of the nursing legislations to add required definitions and tasks related to disasters.

It was stated that 448 healthcare professionals died, including 102 physicians and 58 nurses (seven working in Iskenderun State Hospital and one working in Hatay Training and Research Hospital). The nurses and patients died in the Iskenderun State Hospital, which had been reported years ago that the hospital building had not resisted the earthquake (Medimagazin, 2023a, 2023b; TTB, 2023a, 2023b).

FURTHER TASKS FOR NURSES AFTER KAHRAMANMARAŞ EARTHQUAKES

In disaster situations, there are deviations in the masses’ physical, social, and mental well-being. The severe consequences affect all social life in the short, medium, and long term, depending on the size of the population and area. In addition to the loss of life, illness, and disability, there may be significant financial losses. All traumatic situations increase the risk of mental distress, post-traumatic stress disorder, and depression (Whang et al., 2020). Survivors may feel fear, guilt, and anger in this situation. They might constantly revive in their minds and dreams, avoiding triggers that remember the earthquake and experiencing sleep problems. People may also fear that their relatives or themselves might die suddenly. Secondary traumatic stress symptoms might also be seen in individuals exposed to earthquake images or news media (Yıldız et al., 2023).



Health professionals are trying to heal people's wounds voluntarily by going to the region. Nurses, physicians, and some hospital managers have organized to create volunteer healthcare teams. The earthquake survivor nurses in that region provided the region's nursing care to victims. However, nurses in the earthquake area offer services in the field without their relatives or their wounds. Turkish Nursing Organization (TNO) has announced that the nurses who work in earthquake areas should take administrative leave (TNO, March 23, 2023). However, they have still worked in this region. They care for their patients and their relatives. Şeyma Nurse was an excellent example of this situation. She works in the paediatric ward of a hospital in Gaziantep, caught by security cameras while trying to evacuate her patients during the earthquake. Media reported that nurses working in the neonatal intensive care unit, such as Şeyma, kept incubators and protected babies during an earthquake (Earthquake Turkey, 2023). Although only "hero nurses" were visible in the media, nursing and nurses' difficulties in the affected region were not reported. Specialist nursing organizations under the Turkish Nurses Association (THD) umbrella presented information on their websites and social media since the first day of the earthquake. In particular, the Public Health Nurses Association has prepared a public health education booklet about disasters. In this booklet, outbreaks and management in the disaster area, hygiene, fires, animal bites, drinking safe water, and safe sex are discussed (Public Health Nurses Association, 2023). Furthermore, the Psychiatric Nurses Association (PNA) published a member's earthquake experience and underlined the psychological first aid from the first day. PNA prepared seminars on loss and grief in traumas and shared informative messages on preventing secondary traumatic stress. PNA has also given some explanations about communication with children, the impact of the earthquake on children's mental health, and messages about the privacy of individuals rescued from the debris were published. PNA has also joined the Istanbul Psychosocial Solidarity Network and provided voluntary psychosocial support in the region (PNA, 2023). In addition, TNO announced that they would set up a tent in Adiyaman, one of the earthquake provinces, on March 11, 2023, and invited volunteer nurses (TNO, March 11, 2023).

Not only the nursing services provided, but also the nursing education, all over the country, was affected due to the earthquake. The president's office and Higher Education Board (HEB, 2023a) announced on February 11, 2023, that all universities will start distance education because of the shortage of safe places for people who lost their living area and the use of student dormitories for housing need until April 2023 (HEB, February 11, 2023a). Although it is not a regular policy choice in disaster, the government could not find any solution for housing victims. The students, including nursing students, face this housing problem even if they are earthquake victims and the numbers of these populations were unknown. After the pandemic, applied sciences such as nursing, medicine, and engineering were significantly influenced

by this new regulation. HEB has a quota for senior students in applied sciences in dormitories. They have continued their internship (HEB, February 17, 2023b), although nursing students pursuing other degrees have continued their education theoretically. This regulation has affected clinical practice after the pandemic, especially in practice-based health sciences such as nursing education. The Nursing Education Association (NEA) in Turkey and TNO have announced that nursing curricula could not carry out with distance education (NEA, 2023; Sciences, Health & News Agency, 2023). There was no response to these protests. HEB has announced that practices that were postponed to April, will be subject to homework, projects, etc. It can be done face to face in the spring, summer, or the next semester (HEB, 2023c).

Another major issue related to education was that the students in the earthquake area constitute 9% of the students in the country. The universities in the earthquake area could not start distance education because many academicians, students, and staff were affected by the earthquake. University students who stayed in a tent could not attend the classes since they needed equipment (e.g., laptop, mobile phone, etc.) and internet connections (BBC, February 21, 2023). Some students state that they want to register at another university in the province, but need help due to accommodation.

The World Health Organization (WHO) warned the authorities on the evening of February 6 about the importance of ensuring clean water and food to prevent epidemics in the region (WHO, 2023). All national and internal authorities were anxious about the possible epidemics that could cause severe damage to community health besides the earthquakes. Healthcare professionals reported that scabies and diarrhea among people started. Also, the Turkish Medical Association announced in the sixth bulletin that there was a need for container or prefabricated areas.

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We appreciate international solidarity with the region. However, supporting nurses during extraordinary situations is vital; we need more help. We hope the global nursing community will help us manage the disaster's short- and long-term results in community health. We want thank to the healthcare professionals who are still working in the region. Lastly we appreciate volunteer nurse MSc Esma Durmayuksel for sharing her photograph with us.


CONFLICTS OF INTEREST

The authors have declared no conflict of interest.

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