



LETTER TO THE EDITOR

Natural Disasters and Medical Counter Measurements

Doğal Afetler ve Tıbbi Önlemler

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Dear Editor,

Natural disasters, especially earthquakes, are of utmost importance in Turkey due to its geographical location on the active tectonic plates, which pose a significant threat to its people. Given the last Kahramanmaraş and Hatay quake in the southeast region of Turkey on February 06, 2023, and the following, about 14 million people were affected, over 50.000 died, and many people were injured.^[1] Natural disasters are unpredictable events and cause various impacts on society, including loss of life, destruction of homes, disruption of infrastructure, economic losses, and health service disruptions.^[2] In 2020, the Turkey Disaster and Emergency Management Authority recorded 3,008 natural disasters, which resulted in 126 deaths and 329 injuries. The most common type of natural disaster was floods, followed by landslides and earthquakes. This highlights the importance of disaster preparedness and risk reduction measures in Turkey, which is prone to natural disasters.^[3]

Responding to natural disasters requires well-coordinated efforts involving multiple stakeholders, including government agencies, non-governmental organizations, and health-care providers. The disaster cycle, consisting of preparation, response, recovery, and mitigation phases,

serves as a framework for emergency managers to plan and respond effectively to disasters. The preparation phase involves constructing response plans to anticipate potential hazards. During the response phase, immediate action is taken to limit the adverse effects of the disaster. The recovery phase aims to restore the affected community to pre-disaster levels of functioning. The mitigation phase involves implementing measures to prevent or reduce the impact of future disasters. The mitigation phase may also be referred to as “prevention.” The disaster cycle provides a comprehensive guide for emergency managers to handle disasters effectively and minimize their effects on communities.^[4]

Infections are also a critical concern during disasters as they can impact the health and survival of affected individuals. Infection risks according to the disaster periods can be analyzed in three periods. The initial acute phase, lasting one to 4 days, is characterized by search and rescue operations, organ damage, and injuries, including infections related to injuries and soft tissues. In the early phase, lasting 4 days–4 weeks, infections resulting from crowded living conditions become a significant concern. Infections caused by water shortages, contaminated water sources,

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and poor sanitation conditions, as well as those related to injuries, are also prevalent during this phase. The recovery and wound healing phase, lasting longer than 4 weeks, is marked by the resettlement of individuals to endemic areas and the emergence of new infections. Water-borne infections, inadequate food intake, food-borne infections, infections related to injuries, and diseases with epidemic potential are also common during this phase.^[5]

In conclusion, medical education plays a crucial role in preparedness for disaster response and management, as it equips health-care professionals with the knowledge and skills to handle the unique challenges that arise during disasters. This includes triaging patients, providing appropriate treatment, and preventing the spread of diseases. Improved medical education can lead to more efficient health-care delivery, better patient outcomes, and higher survival rates in the aftermath of disasters. Therefore, medical education should be a priority in the curriculum of medical schools, emphasizing the importance of preparedness for disasters.

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