

Editorial

Integrating Health Education in Earthquake Preparedness and Response

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Nepal, a seismically active country located in South Asia, is considered one of the most disaster-prone areas of flood, landslide, and earthquake because of its fragile and complex geophysical setting as it ranks 11th most earthquake-prone country in the world (National Planning Commission, 2015). Nepal's common disasters include landslides, earthquakes, pandemics, floods, and climatic effects. The country has experienced several devastating earthquakes in its history, including the 2015 devastating earthquake which killed nearly 9,000 people and injured over 22,000 (Goyet et al., 2018). Some noticeable earthquakes are 1255AD/1310BS (7.8M), 1260AD/1316BS (7.1M), 1408AD/1463BS (8.2M), 1681AD/1737BS (8.0M), 1810AD/1866BS, 1823AD/1880BS, 1833AD/1890BS (8.0M), 1934AD/1990BS (8.1M), 1980AD/2037BS (6.5M), 1988AD/2045BS (6.9M), 2011AD/2068BS (6.9M), 2015AD/2072BS (7.8M), 2023AD/2080BS (6.4M). Among the recorded earthquakes, those occurring in 1934 AD/1990 BS and 2015 AD/2072 BS were the most critical, claiming 8,519 and 8,856 human lives respectively (Joshi, 2020; UNICEF, 2023). Earthquakes pose a significant threat to public health in Nepal, as they can cause widespread damage to infrastructure, including healthcare facilities, and disrupt the delivery of essential healthcare services (van der Heijden et al., 2022). The recent hit earthquake on 3rd November 2023 in Jajarkot killed at least 153 people including 78 children. About 375 persons were injured in Jajarkot and western Rukum districts, where around 5,000 houses were damaged and more than 3,000 were destroyed ([2023 Nepal earthquake - Wikipedia](#)).

There are several challenges to providing healthcare during an earthquake emergency in Nepal (Goyet et al., 2018). Damage to healthcare facilities, infectious diseases, malnutrition, disruption of supply chains, access to affected areas, shortage of healthcare workers, and long-term psychological impact are some common threats during and after the disaster (Patel et al., 2023). Senior citizens, pregnant women, breastfeeding mothers, children, and disabled people are highly vulnerable during and after the earthquake and aftershocks. Some strategies are recommended during earthquakes and other disasters such as: strengthening healthcare infrastructure; improving supply chain management; training healthcare workers; and providing mental health support (Hargono et al., 2023). However, health education and communication are the most important strategies during such emergencies, it is neglected by policymakers, managers, humanitarian organizations and the government (Zhang et al., 2023).

It is said that no country is fully ready to deal with such disasters preparedness (Bellizzi et al., 2023) and it is not possible to control the disaster but it is possible to reduce the impact and

trauma of the catastrophe through emergency preparedness and response strategies (National Planning Commission, 2015). In such conditions, health education could be one of the cost-effective strategies that can minimize the gravity of problems. Some behavior change strategies can be implemented by utilizing health education through mass media, community outreach, and educational settings such as schools, colleges and universities, and healthcare facilities (Goyet et al., 2018; van Teijlingen et al., 2021). They include but are not limited to earthquake preparedness, first aid, prevention of diarrhoeal/communicable diseases, hygiene, water supply and sanitation, shelter and food supply, psychological counseling, and mental health. The victims of earthquakes need multiple support based on the situation and magnitude of the disaster. More attention is needed to safeguard pregnant and lactating women, children and elderly, and persons with disabilities and chronic diseases. In the case of the Jajarkot earthquake of November 2023, the pressing need for health education among the people was sanitation and hygiene, nutrition, psychological, and other life-saving measures are of paramount importance.

It is evident that education has a crucial role to play in disaster risk reduction (DRR) and human security to achieve sustainable development goals (Shaw et al., 2011). Health education should be a critical component of disaster preparedness and response. It can help reduce the risk of injuries and deaths during earthquakes and/or other disasters by providing people with disaster preparedness-related knowledge and skills to stay safe and protect themselves from the likelihood of injuries and premature deaths (Veenema et al., 2016). However, the role of health educators is mostly neglected during the response and rehabilitation period as priority is given to temporary shelter, food, and health care services. Health education and intervention help people to acquire disaster preparedness knowledge and response and resilience skills reducing the likelihood of mortality and morbidity associated with the earthquake. Health education helps people develop resilience and coping skills with disasters, enabling them to live in a less stressful environment. Health education can serve as a social vaccine against disasters like earthquakes, which develops resilience and coping skills against disasters. Therefore, the government, as well as humanitarian organizations, should continue to invest its efforts in health education and intervention-related programs to help people stay healthy and safe during earthquakes and aftershocks.

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