

Curbing Death from Natural Disasters in Mass Gatherings

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Iran is located in the disaster-prone Himalayan fault lines; it has thus experienced large scale disasters (1). In 2012, Iran ranked 9th among the countries in the world based on the number of disaster deaths (2). Earthquake is the most frequent natural disaster in Iran, and earthquakes occur without warning (3).

On the other hand, crowded pilgrimage shrines and centers of religious mass gatherings are prone to disasters. The Haj organization of Iran shows an increasing frequency of deaths in pilgrims performing religious ceremonies annually (4).

Accordingly, the importance and necessity of proper management of disasters have been underscored in mass gatherings (5, 6).

Importantly, when an earthquake occurs of high magnitude, pilgrims seek to exit the worship site. Crowding and the resultant pressure and stampede of anxious population of pilgrims increase the potential risk of injury, trauma, and death.

On September 24, 2015, more than 2400 pilgrims lost their lives during the Hajj pilgrimage at Mina, in Mecca, Saudi Arabia. This disaster caused the pilgrims to be crushed and trampled over during the mass gathering that lead to critical injuries, dehydration, heat stroke, and

death (7).

Disaster management on mass gatherings (DMMGs) requires a multi-dimensional approach for formulating an evacuation strategy and safety policy. The strategic planning in DMMGs should be formulated for evacuation, preparedness, and emergency response for effective implementation of DMMGs; additionally, special and professional training programs including triage of victims should be implemented.

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