

A Retrospective Audit Assessment Aspects of Earthquake Management by Medical Officials Then-Stationed In Bam

Dear Editor,

In December 26, 2003, Bam was devastated by an earthquake of 6.3-6.6 Richters. Health facilities and 120 schools were destroyed.¹⁻⁶ Water, electricity and telephone lines were down. A state of emergency was declared. In addition to recruiting medical aid, international search-and-rescue teams were dispatched to provide medical care, effective air evacuation and relief missions. Like similar disasters, management was not without problems.¹⁻⁸ Medical officials in Bam faced with numerous managerial dilemmas; this audit assessed officials in charge of management (medical authorities, Health Bureau, Civil Affairs Bureau, county hospitals and authorities in charge of health posts, Chancellor of Kerman University, Deputy Minister of Health, Head of Baseige Task Force, Head Doctor of Bam Guards Corp, administrator of Army Field Hospital, Administrator of Iranian Guards Field Hospital, Medical university deans, Head of Search and Rescue teams, etc.) then-stationed in Bam. Twenty-one medical officials were questioned 3 years after the earthquake (in 2006) to assess their response in rescue operations, trauma management, treatment teams, transfer of equipment and facilities, coordination among rescuers, evacuation of casualties, triage of casualties, medical care provided, assistance of Iranian Military forces, accommodation of survivors, paraclinical facilities availability and the Insurance and Volunteer Healthcare Aid. The collected data revealed that 66.8% of medical officials felt that the Ministry of Health was responsible for medical management. Its effectiveness was assessed to be 60%. However, 76.2% of medical officials believed that sufficient crisis evaluation was not undertaken; effectiveness of the Red Crescent (RC) in management was 57.6%. No one held the military to be responsible; however its role in medical management was secondary and assessed to be 58.8% and 76.2% believed that sufficient crisis evaluation was not performed primarily and was underestimated. Thus, the mortality rate was high. The day after the earthquake, all forces in Bam wished to take charge of the situation resulting in uncoordinated management.

Medical officials in the Bam earthquake described the roles of emergency organizations responsible for crisis management as average; mutual and national aid services and volunteers for providing healthcare were plentiful. Participation of national and international organizations in evacuation of wounded victims was lifesaving. Immediate establishment of treatment teams during the first 24 hours was notable. In contrast, lack of coordination among treatment organizations, undefined responsibilities, and disharmony in cooperation between organizations caused managerial chaos. Communication between organizations was evaluated as weak by 90.5% of medical officials. Although these organizations communicated with each other, they worked separately. Readiness and preparedness in treatment management were evaluated as weak because of lack of a holistic management plan, experience, and undefined duties of organizations in charge, facilities, and economical short-comings.^{9,10} Although news were broadcasted late, coverage of the media scored well. Medicine and manpower ranked first and second in importance. National and international aid ranked 3rd. The wounded individuals were evacuated within 72 hours. The medical officials felt that the protocols needed to be improved, and education was necessary to prevent any danger to victims upon rescue.^{1-3,9-12} A comprehensive disaster management plan has been formulated and proved to be effective in reducing morbidity and mortality in subsequent disasters.

Keywords: Earthquake; Management; Bam; Iran

Conflict of interest: None declared.

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