



Capacity building in the rate of hospitalization of patients in times of crisis

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Abstract

Considering the effects of crisis on society, emergency medicine and crisis management by scientifically and systematically observing crises and analyzing them, seeks to prevent and prepare for crisis and in case of its occurrence reduce the destructive effects and react quickly and appropriately. The purpose of this research study, capacity building in the rate of hospitalization of patients in times of crisis in Razi hospital, Ahvaz. This study was performed in Razi hospital, Ahvaz. In this study the amount of capacity at first emergency ward to providing medical services during before the crisis. Data was collected by crisis questionnaire Razi hospital and analyzed by descriptive statistics using EXCELL and SPSS.

The results of this study showed that capacity to accept were 14 injured in time of disasters in emergency ward at Razi teaching hospital, Ahvaz after increased capacity ability to accept injured in emergency ward increased to 38 persons. This study showed that it is necessary to take measures in order to hold periodic exercises and training courses, planning and providing facilities and equipment for crisis management.

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Introduction

Disasters is an unpredictable condition that organizations and people in the community can't meet their daily and basic needs. Financial damages and injuries caused by natural or man-made disasters, Can have a huge impact on the lives of people, their health and their ability to have their basic needs (Hekmatkhah et al., 2012). Hospitals and health centers, including the departments of health are considered in the national program. Hospitals should be well prepared before emergencies and disasters as the most basic and vital center for providing health care services. So that at the time of disaster and disasters, they will be able to provide service and respond to a huge amount of referrals(Malekshahi & Mardani, 2009; Salari, Heidari, Julae, Rahimi, & Shafaghat, 2011). Disasters management in the hospital consists of four stages of prevention, preparation, response and clearing(A, 2009; AMIRI et al., 2011; Chapman & Arbon, 2008; Daneshmandi et al., 2010; Hosseini Shokouh, Arab, Rahimi, Rashidian, & Sadr Momtaz, 2009; Murphy, 2004; NasiripouR, Raeisi, & MAHBOUBI, 2007; Ojaghi, Nourizadeh, MAHBOUBI, Khazaei, & NAJAFI, 2009) Maneuver will be required to prepare for emergency response. For this reason, hospitals need to have a pre-designed disasters management plan to provide better services at a time of disasters. And the lack of such a program will change the acceptability of the injured, the conditions of service provision and the disorder and confusion about the issues among the different treatment groups in times of disasters(A, 2009; AMIRI et al., 2011; Chapman & Arbon, 2008; Daneshmandi et al., 2010; Hosseini Shokouh et al., 2009; Murphy, 2004; NasiripouR et al., 2007; Ojaghi et al., 2009). In order to properly carry out activities, especially in the emergency department and admitting patients who have been injured by the disasters, prior to the disasters, investigations should be made to ensure that the hospital does not encounter difficulties in accepting the injured in the event of a disasters. Therefore, the way of managing and

providing health care services is very different in normal conditions and in disasters (11-10, 16) A study in Urmia showed that the emergency preparedness of hospitals is weak against the disasters(Hekmatkhah et al., 2012). In a similar study by Salari et al., The emergency preparedness of hospitals during the disasters was good and good (77.8%)(Salari et al., 2011). The most important strengths of this study are the high employee participation in this research and the understanding of the critical issue of disasters management among them. This will allow them to be prepared to deal with them in the event of disasters and crises. The purpose of this research study, capacity building in the rate of hospitalization of patients in times of crisis in Razi hospital, Ahvaz.

Materials and Methods

Methods

This an interventional study was conducted to capacity building in the rate of hospitalization of patients in times of crisis. Evaluated by a questionnaire and observations of safety and disasters experts to increase the number of injuries accepted during the disasters. The questionnaire contains 20 questions related to emergency, reception, discharging and transfer, traffic, communications, security, training, support, manpower and command and control. In the scoring, the 3rd Likert Scale was used. The ranking methodology according to Hojjat et al(HOJAT, SIRATI, Khaghanizadeh, & KARIMI, 2008) was as follows: Relative score of 40 was weak, 40 to 70 was average and more than 70 was good. Then, an executive plan was prepared and compiled including the provision of equipment for critical situations, the training of hospital staff to locate and turn emergency situations into disasters situations, predict hospital needs during the disasters, and make changes in the physical space of the ward cusses increase the capacity of the emergency ward.

Description of study area

Ahvaz city, the capital of Khuzestan Province is located between 48° and 49°29' east of the Greenwich meridian and, 31°and 45' minutes north of the equator (Dastoorpoor et al., 2019; Goudarzi et al., 2017; Javanmardi et al., 2018; Khaefi et al., 2017; Mohammadi et al., 2017; Momtazan et al., 2017; Nashibi, Afzalzadeh, Mohammadi, Yari, & Yousefi, 2017; Nashibi et al., 2018). Razi Hospital is a tertiary-care hospital with 220 beds, and is located in the center of Ahvaz (Geravandi et al., 2018; Masjedizade et al., 2017; Nashibi et al., 2018).

Statistical Analysis

hospital data were collected from the Statistics and information three hospital of Razi teaching hospital, Ahvaz 2014. Data analyses were performed, using SPSS-16.

Results

The result of this study showed that the number of beds is 14 main beds and 5 beds under supervision

in the emergency ward. This ward can simultaneously accommodate up to 38 patients and the necessary measures are taken for these patients. In evaluating this section, an organization and a chart for crises were first written with the views of colleagues and emergency medicine experts. Possible areas are best used like adjacent clinics and reception space and the capacity of this section has been added up to 36 patients and this increase was assessed by performing two maneuvers. The average score essential medical equipment, human resources, physical space, structure and organization and Protocols and performance before the evaluation were 57.62, 29.52, 72.84, 50.09 and 25.36, respectively (Table 1). The average score essential medical equipment, human resources, physical space, structure and organization and Protocols and performance after evaluation were 75.36, 45.36, 82.19, 70.63 and 42.63, respectively (Table 1).

Table 1: The status of effective evaluation of the capacity of the emergency ward to receive injuries during the crisis before and after intervention during 2014

Items	Condition before intervention			average	deviation	Condition after intervention			average	deviation
	Poor	Moderate	Good			Poor	Moderate	Good		
Essential medical equipment, non-medical and consumables		*		57.62	18.32			*	75.36	21.28
Human resources (knowledge and organizing force)	*			29.52	16.32			*	45.36	17.47
Physical space (having space,			*	72.84	15.01			*	82.19	16.87

no construction hazard)										
Structure and organization		*		50.09	13.04			*	70.63	18.93
Protocols and performance graphs	*			25.36	10.75	*			42.63	15.08

Discussion

The results showed that the capacity and ability of admission were 14 injured simultaneously to the emergency ward of Ahvaz hospitals before corrective actions. And capacity of admission increased to 38 injured emergency department simultaneously after the corrective actions. According to the results of this study, before physical examination, the physical location has good status, equipment, manpower and structure with moderate condition and protocols and performance diagrams have poor status. Regarding the analysis of the data obtained from this study, it was found that by performing corrective actions all the effective factors other than the manpower had a good status, the main reason for not achieving the human resources situation is the lack of force to the right number, as well as the unwillingness to attend training courses and undesirable organization of forces in the emergency ward. Treat et al. Studied the readiness of hospitals to cope with the crisis. They reported moderate readiness in this study, which is lower than the current study (Treat et al., 2001). The results of the study in Turkey have highlighted the level of preparedness in the face of the crisis, which is in line with the current study carried out at Razi teaching hospital (Mohammad et al., 2013). One of the most important disadvantages mentioned in this study was manpower and physical space which is similar in terms of workforce. According to a study conducted in 2003 in the United States, hospitals' readiness was assessed during a crisis and it was found that only about 22% of the hospitals under study had readiness to deal with the crisis. (Murphy, 2004) Similar research results in Tehran showed that hospital preparedness against the crisis was about 47% (26). The emergency preparedness rate of Isfahan hospitals is 38% and poorly reported regarding crisis and crisis management. Which is related to the emergency preparedness of Razi teaching hospital (Mosadegh-Rad, 2004). Daneshmandi et al. in their

study on selected hospitals in Iran reported that overall, the average relative readiness of coping with the crisis is 54.5%. One of the most important issues mentioned in the scholarship study is the lack of proper capacity and lack of readiness for hospital admission in times of crisis. Which is lower in terms of capacity readiness and awareness of acceptance of injured people in times of crisis in the present study (Daneshmandi et al., 2010). Regarding the assessment of human resources, the level of readiness was at an average of 51% during the crisis.

Conclusion

The present study studied capacity building in the rate of hospitalization of patients in times of crisis. Increasing capacity in the areas of evacuation and transfer, traffic, communications and security, emergency room beds, admission, training, human resources, command and management. It is necessary to study the conditions of all parts of the hospital to upgrade them. Because the fact that during the crisis all health departments and support units are also involved in the crisis.

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