

Full Length Research Paper

Assessing the Awareness Regarding Disaster Management Plan among an Interprofessional Team in a University Hospital

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Abstract

Disaster can be defined as a sudden extraordinary event that brings great damage, loss, destruction and injury to people and their environment. Interprofessional collaboration can have a positive impact on the quality of patient care. All employees need to be oriented with the disaster management plan of their organization. The aim of the study is to assess the awareness of the health team members about disaster management plan in the Suez Canal University Hospital. The study conducted at Suez Canal University Hospital using a cross-sectional design. It included medical staff and non-medical staff members (doctors, nurses, laboratory, radiology technicians, security officers, registration officers, and housekeepers n=400). The data collection tool is a questionnaire that included 22 questions categorized into seven sections. According to the study, the awareness of various categories of the study candidates about the emergency response plan of the hospital was generally low. There was a low awareness of the meaning of disaster among all categories. There is a high awareness among doctors, nurses, laboratory, radiology technicians regarding infection control section, while the awareness was low among security officers, registration officers, and housekeepers. There is a lack of awareness of hospital staff members regarding emergency response plan and the meaning of disaster at the Suez Canal University Hospital. The study recommends that hospital administrations should give more attention to the problem of disasters, disaster plan. More emphasis should be paid for training programs regarding disaster management for all responsible team in the hospital.

Keywords: Disaster, Disaster Management Plan, Awareness, Interprofessional Team.

INTRODUCTION

Disasters are not being expected, but they happen. Although disasters, human-made or natural, are inevitable, there are ways to prevent and manage how people and their communities respond to a disaster. A disaster can be defined as a sudden extraordinary event that brings great damage, loss, destruction and injury to people and their environment (Stanhope and Lancaster, 2008). Hospitals must prepare for the possibility of disaster within the facility as a requirement of

accreditation and licensure. Healthcare professionals have been less inclined to confront the possibility that disruption may occur within the facility itself and undermine their ability to provide care (Sternberg, 2008). All over the world, hospitals have been involved in disasters, both internal and external. These two types of disasters are independent, but not mutually exclusive. Internal disasters are isolated to the hospital and occur more frequently than do external disasters. External disasters affect the community as well as the hospital (Milesten, 2000). Disaster management plan is an agreed set of arrangements for preparing for responding to and recovering from emergencies and involves the description of responsibilities, management structures,

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strategies, and resource and information management. Disaster planning is about protecting life, property, and the environment (Keine and Phyne, 2001). The interprofessional collaborative practice has been defined as a process which includes communication and decision-making, enabling a synergistic influence of grouped knowledge and skills. Collaborative interactions exhibit a blending of professional cultures and are achieved through sharing skills and knowledge to improve the quality of patient care. There are important characteristics that determine team effectiveness, including members seeing their roles as important to the team, open communication, the existence of autonomy, and equality of resources. In addition, poor interprofessional collaboration can have a negative impact on the quality of patient care (Bridges et al., 2011). All employees need to know the disaster management plan of their organization. Healthcare facilities are required to have regular, periodic fire and disaster drills to allow their staff to practice emergency skills (Kowalski and Bunker, 2003).

The aim of this study was to assess the awareness of the health team members about disaster management plan in the Suez Canal University Hospital.

METHODS

Study setting and design

A cross-sectional descriptive design was used in this study. This study conducted at Suez Canal University Hospital.

Study subjects

The study included a group of hospital staff, medical and non-medical. Medical staff selected from doctors of these departments (emergency, internal medicine, gynecology, general surgery, pediatrics, orthopedic, urology, cardiology, cardiothoracic surgery, neurosurgery, psychiatry, dermatology, E.N.T, ophthalmology, radiology, clinical pathology, oncology and nuclear medicine, rheumatology and anesthesia) pharmacists, nurses, laboratory and radiology technicians. In addition to non-medical staffs, which work in the emergency department, include registration officers, Housekeepers and security officers to assess their awareness about disaster plan. The sample size was 400 Candidates. The research protocol was approved by the Research and Ethics Committee at FOMSCU.

Instruments

The data collection tool used in this research was a self-

administered questionnaire. The questionnaire was considered a modified form of the hospital emergency response checklist (Brain, 2011). The modification was done based on an extensive search in the relevant literature. It consisted of two parts. Part 1: aimed at collecting data serving in the description of the candidates included in the study sample. It included questions about gender, qualification, job position, and years of experience. Part 2: (Candidate's awareness): aimed at collecting data regarding study candidates awareness about disaster management plan in the studied hospital. It was designed in such a way to elicit responses of study candidates to statements with options of "yes," "no," or "unknown." The tool included 22 questions categorized into the following seven sections: Emergency response plan (1 item), The meaning of disaster (1 item), Command and control (2 items), Communication (7 items), Safety and security (3 items), Triage (5 items), Infection control (3 items).

Statistical analysis

Data were fed to the computer and analyzed using IBM SPSS software package version 20.0. Qualitative data were described using number and percent. Comparison between different groups regarding categorical variables was tested using Chi-square test. When more than 20% of the cells have expected count less than 5, correction for chi-square was conducted using Fisher's Exact test or Monte Carlo correction. The significance test results are quoted as two-tailed probabilities. Significance of the obtained results was judged at the 5% level.

RESULTS

Regarding the awareness of various categories of the study candidates about the emergency response plan of the hospital, all candidates answered unknown except doctors and nurses answered no (27.9%), (10.5%) respectively as shown in table 1.

Regarding knowledge of the various categories of the study sample candidates about the meaning of disaster, all categories answered no except doctors (57.3%), and nurses (19.8%) answered yes as shown in table 2.

Regarding the awareness of various categories of the study candidates about command and control section related to presence of a hospital command center, there is low awareness among different groups, the lowest percentages of awareness were between registration officers (100.0%), housekeepers (100.0%), laboratory, and radiology technicians (100.0%) answered unknown. Regarding the presence of job description sheet, it shows high awareness among doctors (68.7%), nurses (58.1%), laboratory, radiology technicians (80%) and security officers (83.3%)

Table 1. Comparison between the different studied groups according to the awareness regarding emergency response plan

	Doctor (n=262)		Nurse (n=86)		Technician laboratory & Radiology (n=10)		Security officer (n=12)		Registration officer (n=10)		Housekeeper (n=20)	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Q1	Does your hospital has an emergency response plan?											
Unknown	189	72.1	77	89.5	10	100.0	12	100.0	10	100.0	20	100.0
No	73	27.9	9	10.5	0	0.0	0	0.0	0	0.0	0	0.0
Yes	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
χ^2_{MC} p												27.437* <0.001*

χ^2 : value of Chi square MC: Monte Carlo test *: Statistically significant at $p \leq 0.05$

Table 2. Comparison between the different studied groups according to the awareness of the meaning of disaster

	Doctor (n=262)		Nurse (n=86)		Technician laboratory & Radiology (n=10)		Security officer (n=12)		Registration officer (n=10)		Housekeeper (n=20)	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Q2	Do you know the meaning of disaster?											
Unknown	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
No	112	42.7	69	80.2	10	100.0	12	100.0	10	100.0	20	100.0
Yes	150	57.3	17	19.8	0	0.0	0	0.0	0	0.0	0	0.0
χ^2_{MC} p												80.248* <0.001*

χ^2 : valu of Chi square MC: Monte Carlo test *: Statistically significant at $p \leq 0.05$

answered yes. While registration officers and housekeepers answered no (80%) as shown in table 3.

Regarding the communication, the awareness of various categories of the study sample candidates about presence of a place for press conferences in the time of event. It shows high awareness among doctors (62.2%) and security officers (83.3%) answered yes. while nurses (93%), laboratory, radiology technicians, and registration officers (80.0%) and housekeepers (75%) answered no as shown in table 4.

Concerning the awareness of various categories of the study candidates about safety and security section related to ability of the hospital to receive chemical incidents. More than half of categories answered no. where nurses (69.8%), laboratory, radiology technicians (70%), security officers (66.7%), registration officers (60%), and housekeepers (65%) answered no as shown in table 5.

Concerning triage section, the awareness of various categories of the study sample candidates about presence of triage area at the entrance to emergency department, the highest percentages of awareness were among security officers, registration officers (100%) laboratory, radiology technicians (90%) moreover, nurses (87.2%) answered yes as shown in table 6.

Regarding the awareness of various categories of the study candidates about infection control section related to meaning of infection control. It shows high awareness between doctors, nurses, laboratory,

radiology technicians (100%) answered yes. While, security officers (100%), registration officers (100%), and housekeepers (50%) answered no as shown in table 7.

DISCUSSION

The interprofessional team with diversity of the groups included in the present study doctors, nurses and technicians are in line Chockshi et al. (2008) stated that emergency response providers include first responders, a subset of emergency professionals, including paramedics and technicians who respond to the incident scene and first receivers, and a set of healthcare workers who receive the disaster victims at hospital facilities.

In our study results regarding knowledge of health team members that the hospital has emergency response plan, showed low knowledge where more than 50% of all the groups did not know if the hospital has emergency response plan as following: doctors (72.1%), nurses (89.5%), technicians, security officers, registration officers and housekeepers (100%). O'sullivan et al. (2008) stated that approximately 40% of studied nurses were unaware that their hospital has an emergency plan. Moreover, nurses reported inadequate access to resources to support disaster response capacity and expressed a low degree of confidence in the preparedness of Canadian health care institutions for

Table 3. Comparison between the different studied groups according to the awareness about Command and Control.

	Doctor (n=262)		Nurse (n=86)		Technician laboratory & Radiology (n=10)		Security officer (n=12)		Registration officer (n=10)		Housekeeper (n=20)	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Q3	Is there chosen a hospital command center for meeting of commanders in the time of incident?											
Unknown	68	26.0	16	18.6	10	100.0	2	16.7	10	100.0	20	100.0
No	194	74.0	70	81.4	0	0.0	10	83.3	0	0.0	0	0.0
Yes	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
X^2_{MC} p	98.570 [*] <0.001 [*]											
Q4	Are there job description sheets that list duties of hospital members?											
Unknown	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
No	82	31.3	36	41.9	2	20.0	2	16.7	8	80.0	16	80.0
Yes	180	68.7	50	58.1	8	80.0	10	83.3	2	20.0	4	20.0
X^2_{MC} p	31.829 [*] <0.001 [*]											

χ^2 : value of Chi square MC: Monte Carlo test *: Statistically significant at $p \leq 0.05$

Table 4. Comparison between the different studied groups according to the awareness about Communication.

	Doctor (n=262)		Nurse (n=86)		Technician laboratory & Radiology (n=10)		Security officer (n=12)		Registratio n officer (n=10)		Housekeeper (n=20)	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Q5	Is there a place designed for hospital set up press conferences in the time of event?											
Unknown	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
No	99	37.8	80	93.0	8	80.0	2	16.7	8	80.0	15	75.0
Yes	163	62.2	6	7.0	2	20.0	10	83.3	2	20.0	5	25.0
X^2_{MC} p	95.746 [*] <0.001 [*]											
Q6	Is there communication with other hospitals for transportation of patients if no available beds?											
Unknown	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
No	105	40.1	39	45.3	4	40.0	8	66.7	6	60.0	15	75.0
Yes	157	59.9	47	54.7	6	60.0	4	33.3	4	40.0	5	25.0
X^2_{MC} p	13.081 [*] 0.023 [*]											
Q7	Is there code blue team in the hospital for rapid response?											
Unknown	42	16.0	26	30.2	10	100.0	12	100.0	10	100.0	20	100.0
No	220	84.0	60	69.8	0	0.0	0	0.0	0	0.0	0	0.0
Yes	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
X^2_{MC} p	14.00 0.023 [*]											
Q8	Are there communication systems (telephone lines, internet connections, and two-way radios) to communicate with hospital staff in the hospital or outside the hospital?											
Unknown	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
No	54	20.6	8	9.3	2	20.0	2	16.7	2	20.0	5	25.0
Yes	208	79.4	78	90.7	8	80.0	10	83.3	8	80.0	15	75.0
X^2_{MC} p	6.266 0.185											
Q9	Is there designated information center in hospital to collect information about patients and diseases?											

Table 4. Continue

Unknown	62	23.7	16	18.6	2	20.0	12	100.0	0	0.0	15	75.0
No	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Yes	200	76.3	70	81.4	8	80.0	0	0.0	10	100.0	5	25.0
χ^2_{MC} p	64.692* <0.001*											
Q10	Is there communication with poison center in chemical incidents?											
Unknown	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
No	262	100.0	86	100.0	10	100.0	12	100.0	10	100.0	20	100.0
Yes	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Q11	Is there activated code blue for rapid recall doctors or any hospital staff from different sites in the hospital?											
Unknown	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
No	0	0.0	0	0.0	0	0.0	2	16.7	2	20.0	8	40.0
Yes	262	100.0	86	100.0	10	100.0	10	83.3	8	80.0	12	60.0
χ^2_{MC} p	122.795 <0.001*											

χ^2 : value of Chi square MC: Monte Carlo test *: Statistically significant at $p \leq 0.05$

Table 5. Comparison between the different studied groups according to awareness about safety and security

	Doctor (n=262)		Nurse (n=86)		Technician laboratory & Radiology (n=10)		Security officer (n=12)		Registration officer (n=10)		Housekeeper (n=20)	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Q12	Can the hospital receive chemical incidents (contents of protection: chemical protective suits, heavy gloves and heavy shoes and glasses)?											
Unknown	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
No	84	32.1	60	69.8	7	70.0	8	66.7	6	60.0	13	65.0
Yes	178	67.9	26	30.2	3	30.0	4	33.3	4	40.0	7	35.0
χ^2_{MC} p	48.042* <0.001*											
Q13	Are there areas for radioactive, biological, and chemical decontamination?											
Unknown	72	27.5	27	31.4	10	100.0	12	100.0	10	100.0	16	80.0
No	190	72.5	59	68.6	0	0.0	0	0.0	0	0.0	4	20.0
Yes	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
χ^2_{MC} p	81.914* <0.001*											
Q14	Are there guidance signs at the entrance to emergency department you should know by it any section?											
Unknown	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
No	56	21.4	19	22.0	2	20.0	0	0.0	0	0.0	0	0.0
Yes	206	78.6	67	78.0	8	80.0	12	100.0	10	100.0	20	100.0
χ^2_{MC} p	11.058* 0.028*											

χ^2 : value of Chi square MC: Monte Carlo test *: Statistically significant at $p \leq 0.05$

Table 6. Comparison between the different studied groups according to the awareness about Triage.

	Doctor (n=262)		Nurse (n=86)		Technician laboratory & Radiology (n=10)		Security officer (n=12)		Registration officer (n=10)		Housekeeper (n=20)	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Q15	Is there an area of screening patients (triage) at the entrance to emergency department?											
Unknown	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
No	40	15.3	11	12.8	1	10.0	0	0.0	0	0.0	5	25.0
Yes	222	84.7	75	87.2	9	90.0	12	100.0	10	100.0	15	75.0
χ^2_{MC} p	6.067 0.371											
Q16	Are there entrance and exit routes clearly identified?											

Table 6. Continue

Unknown	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
No	40	15.3	16	18.6	3	30.0	0	0.0	0	0.0	5	25.0
Yes	222	84.7	70	81.4	7	70.0	12	100.0	10	100.0	15	75.0
χ^2_{MC} p	7.393 0.193											
Q17	Is there designated trauma resuscitation room (contents: pulse oximetry, source of oxygen, portable x-ray, focused abdominal ultrasonography for trauma and chest tube)?											
Unknown	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
No	172	65.6	61	70.9	6	60.0	9	75.0	7	70.0	12	60.0
Yes	90	34.4	25	29.1	4	40.0	3	25.0	3	30.0	8	40.0
χ^2_{MC} p	1.852 0.872											
Q18	Is there designated separated exposure and suturing wounds area?											
Unknown	59	22.5	20	23.3	0	0.0	0	0.0	0	0.0	2	10.0
No	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Yes	203	77.5	66	76.7	10	100.0	12	100.0	10	100.0	18	90.0
χ^2_{MC} p	10.743 0.061											
Q19	Is there chosen burn ward?											
Unknown	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
No	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Yes	262	100.0	86	100.0	10	100.0	12	100.0	10	100.0	20	100.0

χ^2 : value of Chi square MC: Monte Carlo test *: Statistically significant at $p \leq 0.05$

Table 7. Comparison between the different studied groups according to the awareness about infection control

	Doctor (n=262)		Nurse (n=86)		Technician laboratory & Radiology (n=10)		Security officer (n=12)		Registration officer (n=10)		Housekeeper (n=20)	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Q20	Do you know what infection control is?											
Unknown	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
No	0	0.0	0	0.0	0	0.0	12	100.0	10	100.0	10	50.0
Yes	262	100.0	86	100.0	10	100.0	0	0.0	0	0.0	10	50.0
χ^2_{MC} p	332.065* <0.001*											
Q21	Dose the hospital has an infection control program?											
Unknown	99	37.8	0	0.0	2	20.0	12	100.0	10	100.0	13	65.0
No	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Yes	163	62.2	86	100.0	8	80.0	0	0.0	0	0.0	7	35.0
χ^2_{MC} p	98.121 <0.001*											
Q22	Do hospital staff members receive infection control training?											
Unknown	99	37.8	0	0.0	2	20.0	12	100.0	10	100.0	13	65.0
No	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Yes	163	62.2	86	100.0	8	80.0	0	0.0	0	0.0	7	35.0
χ^2_{MC} p	98.121 <0.001*											

χ^2 : value of Chi square MC: Monte Carlo test *: Statistically significant at $p \leq 0.05$

future outbreaks. Therefore, the authors recommended that more training is needed to enhance preparedness for frontline health care workers.

The lack of awareness about the disaster plan and its related items is quite alarming. The shortage in the required local knowledge and capacity would lead to the

inability to manage disasters even if there is a written plan. In this respect, knowledge management has not been at the core of the healthcare business model despite healthcare being a knowledge-intensive business (Russ, 2005).

However, hospitals are becoming aware of the need

for capturing the knowledge of their staff and focusing on the efficient and effective use of information technology. Meanwhile, very early, referred to the "paper-plan syndrome", the belief that disaster preparedness can be achieved simply by the filing of a written plan, and strongly cautioned that such plans prove more useful in practice when they rely upon not as documents to be suddenly consulted in an emergency, but as forms of training complemented with additional forms of preparedness (Auf der Heide, 1989).

Concerning the meaning of disaster, the present study revealed a high level of awareness about the meaning of disaster between doctors where (57.3%) know the meaning of disaster. While low knowledge between nurses, technicians, security officers, registration officers and housekeepers, where less than (50%) do not know the meaning of disaster. The present study findings are in incongruence with the Joint Commission on Accreditation of Healthcare Organizations 2006, that requires accredited facilities to develop an emergency preparedness plan, and further requires that facility staff receive education about the plan, and possess the skills moreover, responsibilities necessary of called upon to implement the plan.

Our study findings demonstrated that communication system was present in the emergency department and recognized by more than (50%) of all categories of respondents. The findings highlight a major deficiency of knowledge in communication with other hospitals between security officers, registration officers, and housekeepers. The findings highlight a major deficiency in communication with poisoning center, which is the backbone of disaster plan. Without efficient communication, nothing could do in disaster management. In this regard, the role of effective communication, comprehensive approach that reflects both communication and teamwork behaviors, as well as a quantitative assessment of surge capacity, supplies, and equipment might be required for disaster management (Kaji et al., 2008).

Although there is a generally high level of availability of equipment and supplies. On the same line, difficulties facing hospitals in disaster preparedness may arise from the multiagency and multi-organizational capacities on which the hospital may have to draw during the crisis. An especially insidious challenge is the uncertainty about the background of external conditions and community resources on which the facility hopes to be able to depend during the crisis (Milesten, 2000).

These present study findings point to major deficiencies in most areas pertinent to disaster preparedness. It was important to collect this information in order to set a plan that is applicable and custom-made for the study setting. In this respect, the documents may give the impression that disaster plans can sufficiently anticipate, perhaps even predict, the contingencies accompanying an extreme event.

In our studied hospital, concerning hospital receiving

and preventive measures for chemical accidents, study results showed wide differences among various categories, where (67.9%) of doctors see that the hospital can receive chemical incidents while less than (50%) between nurses, radiology, laboratory technicians, security, registration officers, and housekeepers see that the hospital cannot receive chemical incidents. However, there were no plans to deal with such accidents as radiation or chemical. In this regard, prearranging for fire or explosion allows the nursing to respond quickly to the victims, and triage and evacuation when needed (Michael, 2003). In incongruence with this, half of the studied nurses were aware about the daily maintenance to avoid explosions. There are many variables in a disaster, such as damage to facilities, loss of critical staff members, and overwhelming numbers of casualties. Each medical treatment facility should have a plan for everything from caring for staff members to getting the laundry done and providing enhanced security or mortuary services. Communication and agreements with local, regional, and federal agencies are vital. Then staff must be trained to shape the tools to impose order on chaos and to provide the most care to the greatest number (Baker, 2007).

Our study findings point to high awareness of the most of the study groups, where more than (50%) were aware about entry and exits routs. High percentages of awareness in security and registration officers (100%) were aware about entry and exits routs. The findings are in congruence with every hospital needs a security plan for the support of immobile patients who do not possess autonomous escape capabilities, little information exists to assist in the development of practical patient evacuation methods. The authors concluded that experiences from a hospital during an evacuation exercise should provide decision criteria for changes in the disaster preparedness plan (Gretenkort et al., 2003).

According to the results of our study, doctors, nurses, and technicians have high awareness about presence of infection control program and training in the studied hospital (62.2%), (100%), (80%) respectively, while low awareness between security, registration officers and housekeepers more than(50%) did not know about the presence of infection control program and training in the studied hospital. In this respect, infection control professionals' role in disaster preparedness and response is essential, even in non-infectious disease emergencies. Infection control issues, such as overcrowding, food-borne illness, inadequate environmental cleaning procedures, difficulty assessing disease outbreaks, inability to isolate potentially contagious patients, and too few hand hygiene supplies could contribute to secondary disease transmission (Rebmann et al., 2008). Other important topics on which infection control professionals need to train include surge capacity, and employees' health and safety.

Infection control must continue to partner with public health and other responding agencies to address gaps in

disaster planning.

Furthermore, findings that are more recent indicated that United States hospitals have made little progress in infectious disease emergency planning since 2005. These authors' study indicated that many of these American hospitals have infection control representation on their disaster planning committee, access to infection control consultation, interim negative-pressure room surge capacity plans, participation in a bioterrorism exercise, and inclusion of health care workers in prioritization plans for vaccinations and medication during a pandemic (Rebmann et al., 2008).

Regarding command and control no disaster management control center. Regarding of the observation of the hospital there was a 24-hour lab, 24-hour X-ray, and no mobile X-ray units in the emergency department, No ambulance preparedness, and no documentation for disasters. Conversely, for chemical and radiation accidents, the hospital cannot deal with them.

The findings are in partial agreement with disaster preparedness and surge capacity is limited in hospitals in Los Angeles County (Kaji, 2006). These included failure to communicate updated plan changes to hospital staff, few opportunities for cross training staff, no plan for work quarantine, and failure to develop plans to designate staff limited to treat infected patients during a pandemic. The authors also added that many hospitals lacked surge capacity measures, including laboratory, long-term negative-pressure rooms, staff, and medical supplies surge capacity.

In order to develop a disaster preparedness plan, According to preparedness assessments, should include elements of disaster planning; emergency coordination; communication; training; expansion of hospital surge capacity; personnel; availability of equipment; and expansion of laboratory capacities (Adini, 2006).

CONCLUSION

There is a major deficiency in the awareness of hospital staff members regarding the emergency response plan of Suez Canal University Hospital and the meaning of disaster. The study recommends that hospital administrations should give more attention to the problem of disasters, disaster plan. More emphasis should be paid for training programs for all categories of hospital staff regarding disaster management, and regular drills. Training programs for infection control and increasing of the surge capacity of the hospital.

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CONFLICTS OF INTEREST

The authors declare that they have no competing interests.

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