ASSESSMENT OF NURSES KNOWLEDGE TOWARD COMMUNITY EMERGENCIES AT AL- HASHIMIYAH GENERAL HOSPITAL IN BABYLON PROVINCE

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ABSTRACT

Background: Disasters are unpredictable events that kill and affect people, demolish properties and disrupt environment. During such events, nurses play a vital role in dealing with the victims. The purpose of this study is to assess the knowledge of nurses toward the emergencies and disasters preparedness of the community; and also, determine the relationship between the knowledge of the participants and their related socio-demographic data.

Methods: A descriptive cross-sectional study used assessment approach with questionnaire items was conducted at AL-Hashimiyah General Hospital in Babylon Province for the periods of   September 15th 2020 to   September 30th 2021. By convenient sample of (200) nurses is selected throughout the use of non probability sampling approach. The reliability of questionnaire determined by a pilot study and validity achieved through a panel of experts. Through the use questionnaire and self report, data collected and analyzed through the application of descriptive and inferential statistics.

Results: Participants age ranged from (21-30) years at mean 28.91, (66.5 %) of them were female. In (70.5%) married residents in urban areas and nursing institute graduated, (38.5%) technical nurses employed from 1-3 years and at last (1) training session. Analysis showed that the majority of (47.5 %) at mean +S.d.= 2.34+ 0.705 were at good level of knowledge. There were significant relationship between nurses knowledge and their age, gender, qualification, years of experience, training sessions and department of work at p-value ≤0.05

Conclusion: Nurses express adequate knowledge towards community emergencies and disasters and influenced by their age, gender, qualification, years of experience, training sessions and department of work. Share all information about disaster preparedness with the nursing staff and keep them informed of preparedness plan and updates. Preparing disaster preparedness training and exercises for the nurses and enabling them to participate in disaster management; Attend a disaster preparedness induction course for every new   staff member.

Key-wards: Assessment, Knowledge, Nurses, Community Emergencies.

I.   INTRODUCTION

A disaster is an event or situation which overwhelms local ability necessitating a request to a national or International level for external assistance global reports demonstrate that disasters are usually related with serious physical, mental, environmental and economic crisis to the impacted vulnerable [1]. Iraq is at risk of multiple disasters that range from natural disasters such as droughts, sandstorms, heat waves, floods, desertification and epidemics to man-made disasters. this sensitivity, coupled with the impact of wars and conflicts in the past four decades, leads to multiple dangerous impacts such as contamination of the earth with biological materials, unexploded ordnance and cluster munitions. Wars and conflicts have affected system functions in response to disasters. This, combined with the impact of poverty and homelessness, increases

people's vulnerability and increases the system's vulnerability, leading to many ineffective services [2]. An epidemiological study between years (2008-2012) indicate that the highest death rate due to disasters, including terrorism, was in 2008 due to sectarian conditions at a rate of (24.36%), the number of people dying in Iraq has continued to escalate the proportion of deaths ascribed to coalition forces has diminished in 2006, although the actual numbers have increased every year. Gunfire remains the most common cause of death, although deaths from car bombing have increased In today's world, crime and violence has a great proportion of human lives. In spite of advancing civilization, killing self or someone is so easy in these days With the gradual improvement of our society [3]. Nurses comprise the highest percent of health and medical workforce. Nurses must understand the national disaster management cycle. Without nursing integration at every phase, communities and clients lose a critical part of the prevention network, and the multidisciplinary response team loses a first-rate partner. Eleven million nurses worldwide form the backbone of the health care system and are the frontline health care workers who are in direct contact with the public contribute to health of individuals, families, communities, and the globe [4]. The present knowledge will help the communication of AL- Hashimiyah and the Hospital to plan their preparedness measure throughout the study recommendation as well as encourage more studies on nursing action and raise the level of awareness regarding catasphores preparedness which ensure working with maximum skills and competencies.

II. METHODOLOGY

A quantitative descriptive cross-sectional study used assessment approach with questionnaire items was conducted to explore nurses knowledge in regard to community emergencies at AL-Hashimiyah General Hospital in Babylon Province for the periods of September 15th 2020 to September 30th 2021.

A convenient sample of (200) nurses is selected throughout the use of non probability sampling approach. The study sample is distributed throughout many department of hospital which include medical, surgical wards, emergency, intensive care unit, maternal and child unit, and outpatient department.

The questionnaire was used as a method for collecting data containing the following:

Part I: This section composed of demographical characteristics which include "age, gender, marital status, residency and qualification".

Part II: Deals with nurses job variables which include "job title, years of experience, training sessions and department of works".

Part II: Knowledge related to community emergencies and disasters which composed of (11) items.

The reliability of questionnaire determined by a pilot study and validity achieved through a panel of experts. Through the use questionnaire and self report, data collected and analyzed through the application of descriptive and inferential statistics.

III. RESULTS

Table1: Demographic Variables

Variables	Rating	F	%
Age/years (Mean+ S.d= 28.91+6.751)	21-30years old	142	71.0
	31-40years old	33	16.5
	41-50years old	17	8.5
	51and older	8	4.0
Gender	Male	67	33.5
	Female	133	66.5
Marital status	Single	42	21.0
	Married	141	70.5
	Divorced	17	8.5
Residences	Urban	134	67.0
	Rural	66	33.0
Qualification	Secondary school Nursing	66	33.0
	Nursing institute	75	37.5
	College of nursing and above	59	29.5

This reflect descriptive statistics of socio-demographic characteristics in terms of frequencies and percentages of nurses. Out of (200) subjects participated in the study. Aged ranged from (21-30) years of age and constituted (71 %) of the study sample. Gender-related results indicated that (66.5 %) of them were female nurses were out total number. In terms of marital status, the married nurses were predominated, it constituted (70.5 %). Most of nurses were residents in urban areas and nursing institute graduated, it composed (67 % and 37.5 %) respectively.

Table 2: Distribution of the study sample according to their of Job

Variables	Rating	F	%
Job Title	Skilled nurse	72	36.0
	Technical nurse	77	38.5
	Academic nurse	47	23.5
	Head nurse	4	2.0
Years of experience	1-3years	88	44.0
	4-6years	55	27.5
	>6years	57	28.5
Training sessions	Non	50	25.0
	1 session	80	40.0
	2 sessions	31	15.5
	>2 sessions	39	19.5
Department	Medical wards	29	14.5
	Surgical wards	35	17.5
	Emergency department	60	30.0
	ICU	15	7.5
	Maternal and newborn unit	24	12.0
	Outpatient department	37	18.5

The findings presented the distribution of the study sample by job variables. The technical nurses were represented (38.5%). Regarding years of experience (44%) of the participants employed from 1-3 years old in nursing .The same table showed that (40%) were participated in at last (1) training session, and the last variable was related to the department nurses working in results indicated that (30%) of them working the in emergency department.

Table 3:Nurses Knowledge regarding Community Emergencies and Disasters

	Rating	*F*	*%*	*S.d.*	*M.s.*	*Ass.*
Overall Knowledge	Good Knowledge	95	47.5	0.705	2.34	Good Knowledge
	Moderate Knowledge	78	39.0			
	poor Knowledge	27	13.5			
	Total	200	100.0			

"F= Frequent , %= Percentage, M.s.= Mean of score, poor (M.s.=1-1.66), moderate (M.s.=1.67-2.33), good (M.s.= 2.34 and more), S.d = Stander deviation"

The results showed the overall knowledge of nurses in AL-Hashimiyah General Hospital towards community emergencies and disasters. Analysis showed that the majority of (47.5 %) at mean +S.d.= 2.34+ 0.705 were at good level of knowledge.

Table 4: Relationship between the sample level of knowledge and their socio-demographic data

Variables	Rating	Knowledge			Total	d.f	*Sig.*	
		Poor	Moderate	Good				
Age	21-30years old	20	65	57	142	6	χ^2obs.= 14.588 χ^2 crit.= 12.592 P-value=0.024	S
	31-40years old	5	5	23	33			
	41-50years old	2	6	9	17			
	51and older	0	2	6	8			
	Total	27	78	95	200			
Gender	Male	7	13	47	67	2	χ^2obs.= 21.498 χ^2 crit.= 5.991 P-value=0.000	HS
	Female	20	65	48	133			
	Total	27	78	95	200			
Marital status	Single	8	16	18	42	4	χ^2obs.= 3.815	NS

	Married	15	57	69	141		χ^2 crit.= 9.488 P-value=0.432	
	Divorced	4	5	8	17			
	Total	27	78	95	200			
Residences	Urban	20	52	62	134	2	χ^2obs.=0.745 χ^2 crit.= 5.991 P-value=0.689	NS
	Rural	7	26	33	66			
	Total	27	78	95	200			
Qualification	School Nursing	25	26	15	66	4	χ^2obs.= 58.188 χ^2 crit.= 9.488 P-value=0.000	HS
	Nursing institute	1	33	41	75			
	College and above	1	19	39	59			
	Total	27	78	95	200			

"χ^2obs.= Chi-square observer, χ^2crit.= Chi-square critical, Df= Degree of freedom, P-value= Probability value, S= significant, NS= non significant, S= significant, HS= high significant"

This table indicated that nurses age, gender and qualification have been associated with their knowledge towards community emergencies and disasters at p-value ≤0.05 & <0.01 versus, the marital status and residency showed no significant associated with knowledge at p-value>0.05.

Table 5: The relationship between the Sample level of knowledge and their job variables

Variables	Rating	Knowledge			Total	d.f	Sig.	
		Poor	Moderate	Good				
Job Title	Skilled nurse	11	29	32	72	6	χ^2obs.= 2.281 χ^2 crit.=12.592 P-value=0.892	NS
	Technical nurse	10	28	39	77			
	Academic nurse	6	20	21	47			
	Head nurse	0	1	3	4			
	Total	27	78	95	200			
Years of experience	1-3years	7	37	44	88	4	χ^2obs.= 11.405 χ^2 crit.=9.488 P-value=0.022	S
	4-6years	9	27	19	55			
	>6years	11	14	32	57			
	Total	27	78	95	200			
Training sessions	Non	7	26	17	50	6	χ^2obs.= 23.557 χ^2 crit.= 12.592 P-value=0.001	S
	1 session	13	31	36	80			
	2 sessions	1	17	13	31			
	>2 sessions	6	4	29	39			
	Total	27	78	95	200			
Department	Medical wards	3	14	12	29	10	χ^2obs.= 20.083 χ^2 crit.= 18.307 P-value=0.028	S
	Surgical wards	9	10	16	35			
	Emergency	7	21	32	60			
	ICU	4	4	7	15			
	M & N unit	2	16	6	24			
	Outpatient	2	13	22	37			
	Total	27	78	95	200			

"χ^2obs.= Chi-square observer, χ^2crit.= Chi-square critical, Df= Degree of freedom, P-value= Probability value, S= significant, NS= non significant, S= significant, HS= high significant"

This table indicated that nurses job variables such as years of experience, training sessions and department of work have been associated with their knowledge towards community emergencies and disasters at p-value ≤0.05. As well as, the nurses title were insignificant with their knowledge at p-value>0.05.

IV. DISCUSSION

Discussion of Socio-demographic Characteristics of the nurses

Regarding the age results demonstrated that the higher percentage (71.0%) from the study samples were within age group (21- 30) years old and this result is attributed to the reason for the mostly this is work age and productivity specially for nurses or perhaps because the central and direct appointment after graduation in the Ministry of Health. These results also agree with those who found that fifty percentage of sample aged under 30 year [5]. Another study result stated that the most of their participants represented (44%) were at age range from 20-30 years and that finding support the results of the current study [6].

Related to the gender, results indicate that most of the sample (66.5%) were those females and the remaining were males. This finding is due to a reason the females nurses were more in the study than males nurses . In addition, males nurses sample refused participating in the study or might be related to the high ratio of female nurses comparing to male nurses due to the concept of nursing as female profession. These results agree findings who stated that nurses whom included in their study half of the them were female [7]. Similar result from different study who reported that (65.0%) of respondents reported were female [8].

Concerning marital status the results show that majority of the sample were married . This result might match the result of the sample age group who are within the youth age and for marriage suitable. And that come with the decade who report that (73.3%) of nurses were married [9]. Also this results is supported by (Saidam & Eljedi, 2020) who mentioned in their study that (66.4%) of study sample were married [10].

It is obvious from results that urban residents were predominate, it constituted (67.0%) out total number of the study population, as being the hospital selected for this study are located in urban areas so, the nurses residents in those areas.

In regard to the qualification the study sample revealed that (37.5%) of sample graduated from nursing institute for the following reason : There have been few nursing degrees and universities in Iraq over the past period most of them were created recently and there are many medical institutions. This result was supported by a study carried out by (Diab & Mabrouk, 2015), in Egypt , and stated that (47.1%) of sample were hold a nursing institute. These results agree with many [11].

Studies , one of them conducted in Southeast Ethiopia by (Berhanu et al., 2015) ,where the results indicated that the higher percentage from study sample were graduated from the institute of nursing [12].

Discussion of the work related variables of the participants

The present study results revealed that a percentage less than fifty of the sample working as a technical nurse .This might be because of the shortage of staff which push the hospital to assign them to provide care directly to the patients as well as the same result was consistent with (Alzahrani & Kyratsis, 2017) who clarified the majority of sample (42.5%) were technical nurse [13]. In addition, this result agreed the finding of the study conducted by (Hammad et al.,2011) they mentioned that the higher percentage of nurses were technical nurse [14].

Related to years of experience, the results showed that (44.0%) have (1 to 3) years of experience, these results distributed also among other categories within the same variable, years of experience considers a very important factor in determining many nursing issues specially the knowledge, attitudes and their practices logically the long of year of experience staff spend the more skills they gain, (Al Thobaity et al., 2015) reported that (29.8%) of nurses have years of experience less than 3 years which is came along with the result of present study [15].

With regard to training sessions the results showed that most of the sample (40.0%) were participate in one course training and that agree with (Kutbi et al., 2020), study studied nurses readiness regarding disaster preparedness at Al-Noor Hospital in Makkah and mentioned that the majority (70.62%) of study sample were participated in at least one training session [16]. And , which is consistent with a descriptive study done by (Martono et al., 2018) who demonstrated that (98%) of the respondents had one session previous training [17].

Regarding to the department in which nurses are assigned the finding showed that some of subjects work in emergency unit, this findings was consistent with (Suprayitno et al., 2020) who clarified that about (34.6%) of the Indonesian nurses were working at emergency department [18].

Nurses Knowledge regarding Community Emergencies and Disasters

Concerning the nurses' level of knowledge, the current study results revealed that most of the responses showed have a good level of knowledge towards emergencies and community disasters. This is considered a good result as nurse mostly having this level which can help them deal and manage most conditions facing them in the hospital or even outside ,those knowledge may be gained during their academic preparation or through the continuing education or their work experiences. Many studied focused on the importance of level of knowledge in issue of this study, a study conducted by (Shabbir et al., 2016) through the assessment , the study indicated that majority of study sample (nurses working in the emergency department) and the result represented (92.3%)of them were having a good level of knowledge [19].

This result also agreed (Ayuba et al., 2015) they showed that more than half of study sample had adequate knowledge of the emergencies management [20]. Another study carried by (Shalhoub et al., 2017) reported that more than two third nurses were had high awareness and that consistent with the current study results [21].

Discussion of the relationship between Nurses knowledge and their demographic characteristics

According to the current study findings indicated that nurses age, gender, qualification, years of experience, training sessions and department of work have been associated with their knowledge towards community emergencies and disasters at p-value ≤0.05 & <0.01 versus, the marital status and residency were no significant associated with knowledge at p-value>0.05. The educational aspect and training courses play an important role in knowledge in addition to the experience resulting in the workplace have an effective role in the practical aspect. This findings consisting with findings conducted in Iran. Their findings depicts the disasters management and emergences knowledge were significantly depends on nurses age, gender, education level and years of employment (P<0.05)[22].

Also, findings come alone with findings of (Ibrahim, 2014), found that nurses educational attainment were significantly associated with management of emergencies. Thus an integration of clearly titled theory and practice teaching courses about disaster and emergency preparedness into nursing curricula are crucial needed and provided in respect to their learning/training preferences [32].

A study undertaken by nurses in Hong Kong concluded that nurses are not adequately prepared for disasters, but are aware of the need for such preparation. Also, that disaster management training should be included in the basic education of nurses. Education and training were significant associated with knowledge and practice of emergencies as undertaken by nurses in Hong Kong concluded that nurses are not adequately prepared for disasters, but are aware of the need for such preparation. Also, that disaster management training should be included in the basic education of nurses [24].

Another study done by (Lakbala, 2016) who revealed that there found to be a statistically significant relationship between the age work group, attainments, previous training with awareness. And this result support the finding of the current study [25].

The current study results agree with (Khalil et al., 2019) study data revealed that, there was a statistically significant positive association between nurses' knowledge regarding preparedness of disaster management and demographics data (attending of previous disaster preparedness courses and duration experience) [26].

V.   CONCLUSION

Nurses express adequate knowledge towards community emergencies and disasters and influenced by their age, gender, qualification, years of experience, training sessions and department of work. Share all information about disaster preparedness with the nursing staff and keep them informed of preparedness plan and updates. Preparing disaster preparedness training and exercises for the nurses and enabling them to participate in disaster management; Attend a disaster preparedness induction course for every new staff member.

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