



Assessment of Nurses Knowledge Regarding Initial Management of Burn Victims in Kirkuk Hospitals

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Abstract:

Objectives: To assess the level of nurses knowledge about initial management of burn victims, and to find out relationships between nurses knowledge with their demographic characteristics of age, gender, level of education, marital status, years of experience in kirkuk hospitals.

Methods: "Cross-sectional study" was implemented to achieve the objectives of the research, with 40 nurses from a Non-Probability sample working at a specialist burn facility in Kirkuk City/Kirkuk Health Directorate, from October 18, 2023, to April 5, 2024. A two-part questionnaire was used to evaluate the nurses' knowledge regarding the initial management of burns. Part I asked questions about the nurses' demographics, and Part II asked questions about their knowledge of the anatomy and physiology of the skin, the classification of burns, pathophysiology, and initial management. There were (40) multiple-choice questions in Part II.

Results: According to the study findings, 72.5 % of the respondents have moderate understanding about burns, while 27.5% have poor knowledge.

Conclusions: The study concluded that the majority nurses' who works at burn units in Kirkuk Hospital have moderate knowledge about initial management of burn victims.

Keywords: Burns, Initial management of Burns, Knowledge concerning burns.

Introduction:

Burn is described as the result of contact with thermal, chemical, or electrical substances that causes destruction in the epidermal, dermal, or deeper tissues (1). An estimated 180 000 deaths worldwide are attributed to burns each year, with low- and middle-income nations bearing the brunt of burn injuries. Burns are among the most prevalent injuries in Iraq (2). In 2015, there were around 18,000 burn injuries and 6,000 fire-related deaths in Iraq, according to the most recent WHO report. According to WHO data, Iraq experienced 3,390 fire-related fatalities in 2004; this translates to a death rate that is 12.3 per 100,000 per year greater than the global average (3).

A nurse providing care for a patient with a burn injury should understand the changes that follow a burn, as well as the ability to assess patients with deftness and recognize minor changes in their state (4).

Objectives:

1. To assess the level of nurse's knowledge about initial management of burn victims.
2. To determine the effectiveness of the educational program on nurses' knowledge
3. To find out relationships between nurses knowledge with their demographic characteristics of age, gender, level of education, marital status, years of experience in kirkuk hospitals.

Methodology:

A cross-sectional study was carried out between October 18, 2023, and April 5, 2024. The study

Results:

included a non-probability purposive sample of nurses who provide burn injury care. Out of the 40 nurses that work in the burn center and emergency department at Kirkuk hospitals, 40 participated in the study, and ten nurses participated in the pilot study. An initial management questionnaire for burn victims was created by the researcher. The validity of the instrument was assessed by a panel of specialists, and the Cronbach's Alpha (0.814) was used to calculate the internal consistency of the instrument.

The parts of the questionnaire involved:

Part 1: This part focused on demographical characteristics of nurses, which include: age, gender, level of education, years of experience ,and years of experience in burn units.

Part 2: This part involves 40 items about burns definition, burns classification, signs and symptoms of burns, and initial management of burn.

The Statistical Package for Social Sciences Version 26:00 (SPSS 26:00 IBM) will be used for the data analysis.

Ethical Considerations:

The present study has received scientific approval from both the Kirkuk Health Directorate's ethical research committee and the College of Nursing's Scientific Committee. The confidentiality of their personal information during distribution and publication was guaranteed to the nurses who participated in the study. The participant in this study will not experience any damage.

Table (1): Distribution of the sample according to their socio-demographic characteristics

Demographic Characteristics	Variables	Group (n=40)	
		f.	%
Age	21-30	32	80
	31-40	8	20
	Total	40	100
Gender	Male	38	95
	Female	2	5
	Total	40	100
Marital status	Single	12	30
	Married	27	67.5
	Widow	0	0
	Divorce	1	2.5
	Seperated	0	0
	Total	40	100
Education level	Cycle in nursing	0	0
	Secondary school	0	0
	Institute	23	57.5
	College	17	42.5
	High certificate	0	0
	Total	40	100
Years of experience	Less than 5 years	19	47.5
	5-10 years	17	42.5
	More than 10 years	4	10
	Total	40	100
Years of experience in Burn units	No experience	21	52.5
	Less than 1 years	4	10
	1 – 5 years	15	37.5
	Total	40	100
Training courses	Yes	16	40
	No	24	60
	Total	40	100
Place of training courses	Inside Iraq	16	40
	Outside Iraq	0	0
	Not paticipating	24	60
	Total	40	100

Based on a demographic data analysis, the majority of nurses (80%) are between the ages of 21 and 30. 90% of nurses are men, making up more than half of the workforce. Approximately 67.5 % of all nurses are married. In terms of educational achievement, the majority of nurses hold a diploma level qualification (57.5%).

Based on the years of nursing experience, the table indicates that 47.5% of the sample had fewer than five years. Furthermore, according to the results, 52.5% of nurses had never worked in a burn unit. About burn care training, 40% of participants have taken just one course. All of the courses are taught inside Iraq, however none of the participants in either group had taken training courses outside.

Table (2) Overall assessment of level of nurse's knowledge regarding burns

Level of knowledge	F	%	Mean	S.D	Assess
Poor	11	27.5	17.70	2.451	Moderate
Moderate	29	72.5			
Good	0	0			
Total	40	100%			

F=Frequency, %= Percent, Ass: Assessment, M: Mean, S.D: standard deviation, Poor(<13.3), Moderate(13.4-26.7), Good(>26.8)

The results showed that 27.5% of nurses have poor level, 72.5% have moderate level.

Table (3): Association between Socio-Demographic characteristic of nurses and Overall knowledge concerning burns.

Socio- demographic Characteristics	Rating	Knowledge			Sig.
		Poor	Moderate	Good	
Age	21-30	8	22	0	P-value (0.838) d.f = 1 N.S
	31-40	3	7	0	
	Total	11	29	0	
Gender	Male	9	29	0	P-value (0.018)

					d.f = 1
	Female	2	0	0	S
	Total	11	29	0	
Marital status	Single	2	10	0	P-value (0.182)(d.f = 2 N.S
	Married	8	19	0	
	Divorced	1	0	0	
	Total	11	29	0	
Education Level	Cycle in nursing	0	0	0	P-value (0.096) d.f =1 S
	Secondary school	0	0	0	
	Institute	7	10	0	
	College	4	19	0	
	High certificate	0	0	0	
	Total	11	29	0	
Years of Experience	<5	4	14	0	P-value (0.642) d.f = 3 N.S
	10-5	5	12	0	
	>10	2	3	0	
	Total	11	29	0	
Experience in Burn Unit	No experience	4	18	0	P-value (0.172) d.f = 4 N.S
	>1	0	2	0	
	1-5	7	9	0	
	Total	11	20	0	
Training courses	Yes	6	10	0	P-value (0.247) d.f = 1 N.S
	No	5	19	0	

df: degree of freedom, P: probability value, Sig: significant, N.S: not significant

The results provided an explanation of the relationship between the socio-demographic characteristics of nurses and their general knowledge of burns. They also showed that there was a significant correlation between a nurse's knowledge and gender and an insignificant correlation between their level of knowledge and age, years of experience, and education level at p-value 0.05.

Discussion:

Discussion of Socio-Demographic Characteristics

Regarding age, 20 to 31 years old formed 80% of the sample. This result is consistent with result (5), which stated that around 62% of the study population was between the ages of 20 and 29. Researchers have determined that nurses who work in busy and critical units are typically middle-aged; this age range is thought to be appropriate because these units need a higher level of concentration and

more activities. In terms of gender, there were more male than female (95% male and 5% female). This conclusion is supported by a study of (6), which discovered that male made up more than half (62,2%) of the study population. The researcher believes that this result is gives as the nurses job is more likely for the male than female and this job it is established on male gender.

Regarding marital status, the majority of participants (67.5%) were married. The findings of this study agree with those of (7), who found that most nurses are married in their research. When it comes to education, the majority of participants (57.2%) have a diploma. This finding is comparable with a study done at Azady Teaching Hospital in Kirkuk City (8), which indicated that 60% of participants had a diploma. Researchers suggest that the advancement of nursing education should be given top priority on a global scale. Iraq now has more colleges of nursing than before, which has increased the number of nursing graduates as a result of this effort.

In terms of participants' years of experience, at most 47.5 percent had fewer than 5 years. The study's findings are in line with (9), which examined nurses employed in burn units and discovered that most of them were single and had less than five years of experience in the nursing profession.

The majority of participants had no experience in burn units, which is in contrast to finding (10), which indicated that the majority of participants (75.7%) had one to ten years of expertise. Regarding burn injury training, the bulk of the sample (60%) reported having none, which is in disagreement with (11). It was found that over two

thirds of the participants had attended one or more burn training sessions.

Discussion of nurse's knowledge concerning burns

According to the study's findings, 27.5% of the sample had low knowledge, while 72.5% had moderate knowledge. These results are consistent with (12), which showed that most participants (approximately 50%) had moderate level of knowledge when it came to accurately answering questions about how to care for burn patients.

Discussion of association between Socio-Demographic characteristic of nurses and Overall knowledge concerning burns.

According to the results of the current study, there is no discernible correlation between the study group's demographic information (age, residency, marital status, socioeconomic status, years of experience, level of education, and training sessions) and the outcomes. In contrast to (13), which found no correlation between gender and knowledge, the current study indicated that there is a relationship between gender and knowledge, with the exception of gender. It was demonstrated that male have better responses than female.

Conclusions:

1. Nurses' in burn units in Kirkuk Hospital have moderate knowledge about initial management of burn victims.
2. 27.5% of sample had poor level of knowledge, 72.5% had moderate level of knowledge.
3. There is significant association between nurse's level of knowledge regarding burns and gender and not significant association

between level of knowledge and(age, level of education, years of experience) at p-value 0.05

Recommendation:

1. Activating the work of the continuous nursing education unit correctly in order to give educational courses related to initial management of burn victims in all hospital departments.
2. Availability of all facilities and equipment that about initial management of burn victims.
3. Future research toward about initial management of burn victims is advised with larger samples.

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