Research Paper Nursing

Nurses' Practices Concerning Isolation Techniques for Patients with Burns At Baghdad Teaching Hospitals

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ABSTRACT

Objective(s): The study aimed to evaluation of nurses' practices concerning isolation techniques for patients with burns in burns ward, and to find out the relationship between the nurse's practices and the demographic characteristics that includes (age, gender, level of education, years of experience in burns wards, and training session).

Methodology: A descriptive study was carried out at the isolation rooms at burns wards in Baghdad Teaching Hospitals. A non-probability (purposive) sample of (50) nurses, was selected out of five teaching hospitals in Baghdad city. The study instrument consisted of two major parts was constructed. It is based on the review of literature. First it is concerned with demographic data for nurses; and the second part is observational tool (checklist) is composed of two sections in which there were (95) items. Reliability and validity of the observational checklist were determined through the analysis of a pilot study.

Data were collected through the use of the observational tool. Starting from Nov. 14th 2013 up to the 16th of Apr. 2014.which analyzed through the use of two statistical approaches. They are descriptive statistical analysis (frequencies, percentage, SD, Range of scores, mean of scores and relative sufficiency; and inferential statistical analysis (correlation coefficient and chi- square test).

Results: The finding of study reveals that the evaluation of relative sufficiency was low on 32 (33.7%) items, moderate on 25 (26.3%) items and high on 8 (8.4%) items, while 30 (31.6%) was out of comparison and there is no significant association between ages, gender, level of education and nurses' practices scores, while there is significant association between years of experience in burns wards, training sessions and nurses' practices scores.

Conclusion: The study concluded that the more years of work with the nurses working in the field care of patients with isolated burns increased their excellent performance in the provision of care for burn patients isolated.

Recommendations: the researcher recommends establishing new standard checklist suitable for nurses' practices concerning isolation techniques for patients with burns and increase the educational level of the staffing nursing.

KEYWORDS Burn, Injury, Skin, Friction

Introduction:

A burn is a type of injury to skin caused by heat , electricity, chemicals , friction, or radiation. Burns that affect only the superficial skin are known as superficial or first-degree burns. When damage penetrates into some of the underlying layers, it is a partial-thickness or second-degree burn. In a full-thickness or third-degree burn, the injury extends to all layers of the skin. A fourth-degree burn additionally involves injury to deeper tissues, such as muscle or bone [1].

Burn injuries represent a diverse and varied challenge to medical and paramedical staff. Correct management requires a skilled multidisciplinary approach that addresses all the problems facing a burn patient. This series provides an overview of the most important aspects of burn injuries for hospital and non-hospital healthcare workers [2].

In the United Kingdom (UK) about 250.000 people are burnt each year. Of these, 175.000 attend accident and emergency departments, and 13.000 of these are admitted to hospital.

Burns are also a major problem in the developing world. Over two million burn injuries are thought to occur each year in India (population 500 million), but this may be a substantial underestimate. Mortality in the developing world is much higher than in the developed world. For example, Nepal has about 1700 burn deaths a year for a population of 20 million, giving a death rate 17 times that of Britain [3].

The skin has an important role to play in the fluid and temperature regulation of the body. If enough skin area is injured, the ability to maintain that control can be lost. The skin also acts as a protective barrier against the bacteria and viruses that inhabit the world outside the body [4].

Burn may be life threatening especially in the very young and very old, burn is very painful 'it hurts like hell', regular sleep is very difficult, burn is unique, no other condition is so painful for so long and debilitating, burns are preventable, yet they keep occurring, estimated mortality rates of fire-related burns in 2002, worldwide were 322.000; 40.000 of them occurred in sub-Saharan Africa (WHO), more people suffer from disabilities and disfigurement caused by burns this results in personal and economic effects on both the victim and family ultimately culminating in social stigma and restriction in participation in society [5].

Infection in the burn patient is a leading cause of morbidity and mortality and remains one of the most challenging concerns for the burn team. The importance of preventing infection has been recognized in organized burn care since its inception and has followed recurring themes through the years. These included strict aseptic technique, use of sterile gloves and dressing materials, wearing masks for dressing changes, and special separation of patients, either using private rooms or cubicles [6].

The nurses play an important role in the overall management of a burn patient. They must be well versed with the various protocols available that can be used to rationally manage a given situation. The management not only involves medical care but also a psychological assessment of the victim and the family. The process uses a scientific method to combine systems theory with the art of nursing, entailing both problem solving techniques and a decision making process. It involves assessment of the patient to arrive at a diagnosis and then determining the patient goals. An action plan is implemented and is evaluated in the context of patient response [7].

The nurse play an important role in the application of asep-

tic technique in isolation room during care of burn patient during his / her critical situation .for these reasons the researcher has under taken this research .

Methodology:

Design of the study:

Quantitative design (a descriptive study) was carried out to evaluate of nurses' practices concerning isolation techniques for patients with burns at Baghdad Teaching Hospitals. Starting from Nov. 14th 2013 up to the 16th of Apr. 2014.

The setting of the study:

The study was conducted in isolation rooms at wards of burns at five Teaching Hospitals in Baghdad city (Baghdad Teaching Hospital / Center for treatment of burn patients, Al-Karama Teaching Hospital / Center for treatment of burn patients, Al-Yarmouk Teaching Hospital / Center for treatment of burn patients, Al-Karkh Teaching Hospital / Center for treatment of burn patients, Al-Kindi Teaching Hospital / Center for treatment of patients with burns). These hospitals provide isolation caring for patients with burns.

The sample of the study:

A non-probability (purposive) sample of (50) nurses who was consisted of all nurses who provided isolation techniques for adult patients' and according to the following criteria:-

1. Nurses different level of education.
2. Both sexes.
3. Nurses who provided isolation techniques for adults' patients age 18 year and above who have been diagnosed with burns need for isolation techniques by physician.

Instrument construction:

After extensive review of relevant literature which includes isolation care for patients with burns, also review of guideline for Isolation Precautions: Preventing Transmission of Infectious Agents in Healthcare Settings 2007 (Jane, et al., 2007). Which editor by CDC. The questionnaire was constructed for the purpose of the study. The questionnaire and observation tool consisted of (106) items (Appendix A) which include two parts.

Part one: Nurses' demographic characteristics:

The first part concerned with determination of the demographic characteristics of these nurse's through designated sheet which include eleven items, (hospital name, age, gender, level of education, marital status, years of employment in nursing, years of experience in the leukemic wards, source of experience to using isolation techniques for ALP, training sessions in isolation techniques for ALP, continue education inside hospital, and pursue education by continuing education).

Part Two: observation checklist:

The observation checklist included (95) items of nurses' practices that provide isolation techniques for patients with burns:

I. Hand washing, it consisted of (6) items.
II. Gloves, it consisted of (3) items.
III. Gowns, it consisted of (3) items.
IV. Masks and Respirators, it consisted of (3) items.
V. Cover of Head (Caps), it consisted of (4) items.
VI. Medical Shoes, it consisted of (4) items.
VII. Patient's room (Environment), it consisted of (6) items.
VIII. Management of Contaminated Items, it consisted of (4) items.
IX. Trash/Waste Management, it consisted of (3) items.
X. Linen, it consisted of (3) items.
XI. Patient Management, it consisted from of (6) parts included.
1. Patient's Safety, it consisted of (5) items.
2. Personal hygiene, it consisted of (13) items.
3. Monitor, it consisted of (3) items.
4. Therapy, it consisted of (10) items.
5. Dietary, it consisted of (11) items.
6. Exercises and/or daily activities, it consisted of (4) items.

XII.
A. Laboratory Specimens, it consisted of (3) items.
B. Transmission-Based Precautions (Airborne, Droplet, and Contact Precautions), it consisted of (7) items.

These items were measured, scored and rated on 3 level type Likert scale (3) for always, (2) for sometimes and (1) for never.

Validity of the instrument:

The validity of the instrument was established through a panel of (12) experts.

Reliability of the instrument:

Pilot study was carried out between the 1st to the 30th of December 2013. On (5) nurses in isolation room in burns wards by the researcher and co observe reliability was performed for determination of the checklist, person correlation coefficient was computed for each determination .the results indicated that the correlation coefficient was r= 0.84 at the level ($p \leq 0.05$) which was statistically acceptable.

Internal consistency reliability was employed for the determination of the questionnaire reliability. Interrater reliability (interobserver) correlation coefficient was computed and indicated that the observational checklist was reliable (Pilot and Hangler, 1999).

Data collection:

The data were collected from 4th January to 10th April 2014 through the use of the constructed questionnaire as an observation tool; the researcher gathered the subject's responses through an application of direct observation as a means of data collection. Nurses were observed while they are working in the isolation room at wards of burns during the day. The observational checklist took about (1-2) days at morning shift, each of them was observed on an individual basis. A total of 3 episodes of events were observed for each respondent's practices as a means of data collection. Three correct practices out of 3 episodes were rated as always; 2-1 correct practices out of 3 episodes were rated as sometime; and no correct practices out of 3 episodes was rated as never [8].

Data analysis:

The researcher used the appropriate statistical means in the data analysis which include the following:

1. Descriptive data analysis:

This approach was performed through the determination of:

a. Frequencies (f)
b. Percentage (%)
c. Mean (x)

d. Mean of score (MS):

A mean of score equal to (1.5-2.5) was considered moderate MS, greater than (2.5) was considered high MS, less than 1 .5 was considered low MS.

e. Relative sufficiency (R.S):

Relative sufficiency was assessed for nurse's practices by three grades (low, moderate, high).

The data of practices were ordinal according to the three level scale which were scored as (Never = 1, Sometimes = 2, Always = 3) for each level respectively so the cutoff point was (2) and the lowest value for acceptance was (66.67%). (11.11) was the interval between first and last degree in the same level. 1'heorctical relative sufficiency based on early state facts, there were several levels for evaluating the limits of acceptance starting from low(66.67) through the sever limit (100), so the interval ranged between(66.67-100%). Suggestion was made for classifying the early stated interval for practice into main categories as follows: Low level (66.67-77.78), Moderate level (77.79-88.89), High level (88.90- 100).

2. Inferential data analysis:

1. Chi-square (x2) test:

2. The reliability estimates

Limitations of the study:
The present study has experienced the following limitations:

1. Inadequate literature and lack of relevant research studies.
2. The finding of the study is limited only to the staff that were selected from burns wards in Baghdad Teaching Hospitals.
3. Availability of equipment for isolation techniques for patients with burns in wards is little.
4. Nurses in burns ward were not specifically trained for isolation care for patients with burns only.

Results:
Table 1. Distribution of nurses by their characteristics

No.	Variables			
1.	Age (years)	F.	%	Cumulative%
1.1.	Less than 20	2	4	4
1.2.	20 – 29	16	32	36
1.3.	30 -39	21	42	78
1.4.	40 – 49	10	20	98
1.5.	50 and more	1	2	100
	Total	50	100	
2.	Gender	F.	%	Cumulative%
2.1.	Male	31	62	62
2.2.	Female	19	38	100
	Total	50	100	
3.	Level of education	F.	%	Cumulative%
3.1.	Nursing Intermediate School graduate	9	18	18
3.2.	Nursing High School graduate	21	42	60
3.3.	Nursing Institute graduate	17	34	94
3.4.	Nursing college graduate	3	6	100
	Total	50	100	
4.	Marital status	F.	%	Cumulative%
4.1.	Married 4.1. Illiterate	33	66	66
4.2.	Single	16	32	98
4.3.	Widowed	1	2	100
	Total	50	100	
5.	Years of employment in Nursing (years)	F.	%	Cumulative%
5.1.	Less than 1	1	2	2
5.2.	1 – 5	14	28	30
5.3.	6 – 10	15	30	60
5.4.	11 -15	8	16	76
5.5.	16 -20	6	12	88
5.6.	21 and more	6	12	100
	Total	50	100	
6.	Years of Experience in the burns wards	F.	%	Cumulative%
6.1.	Less than 1	12	24	24
6.2.	1 – 5	29	58	82
6.3.	6 – 10	6	12	94
6.4.	16 – 20	2	4	98
6.5.	21 and more	1	2	100
	Total	50	100	
7.	Training Sessions in the isolation techniques for patients with burns	F.	%	Cumulative%
7.1.	Yes	16	32	32
7.2.	No	34	68	100
	Total	50	100	
9.	Continue education inside hospital	F.	%	Cumulative%
9.1.	Yes	17	34	34
9.2.	No	33	66	100
	Total	50	100	
10.	Pursue education by continuing education	F.	%	Cumulative%
10.1.	Yes	19	38	38
10.2.	No	31	62	100
	Total	50	100	

This table shows that the distribution of age indicated that the majority of nurses' ages were (30-39) years old who were accounted for (42 %).most of them (62 %) were male. The level of education represents that most of them (42%) were from nursing high School. most of them (66%) were married. (30 %) were employee (6-10) years in nursing, Majority of them (58%) were employee (1-5) years in the burns wards. (68 %) of them did not have training sessions in the isolation techniques for patients with burns. (66%) of them had no continue education inside hospital, and finally most of nurses had (62%) no pursue education by continuing education.

Table 2. Sources of experience to using isolation techniques for patients with burns

No	Sources	F.	%	Cumulative%
1.	Reviewing literature which is related to isolation techniques.	5	10	10
2.	Enlightening on update information by Internet.	4	8	18
3.	Participating in Training Sessions.	6	12	30
4.	Working with these patients.	35	70	100
	Total	50	100	

This table show that sources of experience to using isolation techniques for patients with burns was 35 (70%) from working with these patients.

Table 3. The mean of scores and relative sufficiency of nurses' practices.

No.	Items	Never		Sometime		Always		MS	RS	E.
		f	%	f	%	f	%			
Hand washing	Washing hands before the entering to the patient's room.	8	16	23	46	19	38	2.22	74	L
	Wearing of the gloves after washing hand.	12	24	15	30	23	46	2.22	74	L
	Washing hands after leaving the patient's room.	7	14	22	44	21	42	2.28	75.9	L
	Washing hand from above down ward.	8	16	31	62	11	22	2.06	68.6	L
	Using antimicrobial soap for hand washing.	5	10	26	52	19	38	2.28	75.9	L
	Using an antimicrobial agent or an antiseptic agent.	5	10	28	56	17	34	2.24	74.6	L
Gloves	Removing gloves before touching non-contaminated items and surfaces.	12	24	26	52	12	24	2	66.6	O.C
	Wearing of sterile gloves when drugs are given for patient.	13	26	12	24	25	50	2.24	74.6	L
	Changing Gloves between patients.	13	26	15	30	22	44	2.18	72.6	L
Gowns	Wearing of Gowns only once.	19	38	12	24	19	38	2	66.6	O.C
	Removing a soiled gown carefully.	19	38	6	12	25	50	2.12	70.6	L
	Washing hands after removing gloves and gowns.	17	34	21	42	12	24	1.9	63.3	O.C
Masks and Respirators	Changing the face mask each 30 minute.	34	68	14	28	2	4	1.36	45.3	O.C
	Wearing surgical mask for protection from large particle droplets.	16	32	17	34	17	34	2.02	67.3	L
	Wearing respirator mask.	36	72	11	22	3	6	1.34	44.6	O.C
Cover of Head (Caps)	Wearing Cover of head when care is provided for patients.	33	66	14	28	3.0	6.0	1.4	46.6	O.C
	Covering hair's head with caps completely.	13	26	27	54	10	20	1.94	64.6	O.C
	Removing a soiled Cover of head carefully.	15	30	16	32	18	36	2.02	67.3	L
	Covering the heads of patients with caps	19	38	13	26	17	34	1.92	64	O.C
Medical Shoes	Wearing surgical shoes during the entrance to isolation room.	33	66	4	8	13	26	1.6	53.3	O.C
	Removing a soiled shoe carefully.	33	66	8	16	9	18	1.52	50.6	O.C
	Sterilizing shoes every day.	35	70	9	18	6	12	1.42	47.3	O.C
	Keeping shoes in clean place.	33	66	6	12	11	22	1.56	52	O.C
Patient's room (Environment)	Placing the patient in a special room which has positive air pressure 6 to 12 air changes per hour	10	20	11	22	29	57.9	2.38	79.3	M
	Sterilizing the isolation room at least once daily.	12	24	6	12	32	64	2.4	80	M
	Writing isolation instructions and attaches on door of the patient's room.	13	26	11	22	26	52	2.26	75.3	L
	Taking microorganisms swap for patient's room each fifteen days.	21	42	20	40	9	18	1.76	58.6	O.C
	Don't allow fresh flowers.	13	26	19	38	18	36	2.1	70	L
	Washing walls, blinds, and curtains if soiled.	1	2	20	40	29	57.9	2.56	85.3	M

No.	Items	Never		Sometime		Always		MS	RS	E.
		f	%	f	%	f	%			
Management of Contaminated Items	Cleaning reusable equipment with soap and water.	12	24	12	24	26	52	2.28	75.9	L
	Disposing single-use equipment correctly.	3	6	8	16	39	78	2.72	90.6	H
	Marking Containers which are used to transport contaminated items with a biohazard label.	4	8	25	50	21	42	2.34	77.9	M
	Using hot water and detergents to dishwashers.	17	34	12	24	21	42	2.08	69.3	L
Trash/Waste Management	Using tan autoclave bags for keep patients of blood/body fluids.	2	4	24	48	24	48	2.44	81.3	M
	Using a plastic bag to keep patient's waste.	19	38	22	44	9	18	1.8	60	O.C
	Hand washing following waste disposal.	1	2	16	32	33	66	2.64	88	M
Linen	Handling linen that is soiled with blood, fluids, secretions, or excretions.	1	2	9	18	40	80	2.78	92.6	H
	Transporting linen that is soiled with blood, fluids, secretions, or excretions.	20	40	15	30	15	30	1.9	63.3	O.C
	Processing linen that is soiled with blood, fluids, secretions, or excretions.	21	42	15	30	14	28	1.86	62	O.C
Patient's Safety	Put the Patient in isolation room when white blood cells count is as Less than 1000/ mm3.	22	44	13	26	15	30	1.86	62	O.C
	Preventing injuries from used scalpels, needles, or other equipment and place in puncture-resistant containers.	1	2	0.0	0.0	48	96	2.9	96.6	H
	Covering the patient with surgical mask and blanket when transfer outside the room.	1.0	2.0	17	34.0	32	64	2.62	87.3	M
	Elevate of said rail for bed's patient.	14	28	11	22.0	25	50	2.22	74	L
	Removing the series, the hand watch and the jewelries before patient entering to room.	11	22	33	66.0	6.0	12	1.9	63.3	O.C
Personal hygiene	Making general hygiene only once a day.	17	34	16	32.0	16	32	1.94	64.6	O.C
	Providing sterile soap.	1.0	2.0	20	40.0	29	57.9	2.56	85.3	M
	Avoiding the use of makeup.	3.0	6.0	14	28	32	64	2.54	84.6	M
	Providing for Oral hygiene after each mealtime.	4.0	8.0	6.0	12.0	39	78	2.66	88.6	M
	Using antiseptic solution to wash patient's mouth.	12	24	12	24.0	25	50	2.22	74	L
	Using soft and smooth brush to clean patient's teeth.	14	28	7.0	14	28	56	2.24	74.6	L
	Preventing skin dryness with water soluble lubricants.	13	26	11	22.0	26	52	2.26	75.3	L
	Using fingernails, scissors in offered uses round.	6.0	12	18	36.0	26	52	2.4	80.0	M
	Keeping fingernails trimming before entering to patient's room.	5.0	10	29	57.9	16	32	2.22	74	L
	Keeping patient's fingernails cut and short before entering to room.	4.0	8.0	33	66.0	13	26	2.18	72.6	L
	Using hot water and laundry detergent to wash clothing.	5.0	10	29	57.9	16	32	2.22	74	L
	Removing soiled Books, Magazines, and Toys.	3	6	14	28	32	64	2.54	84.6	M
	Using electrical razors to shave patient's hair.	16	32	23	46.0	11	22	1.9	63.3	O.C
Monitoring	Monitoring and recording of signs and symptoms of infection.	18	36	17	34	14	28	1.88	62.6	O.C
	Monitoring and recording of Vital Signs.	2.0	4.0	2.0	4.0	46	92	2.88	96.0	H
	Monitoring and caring with central venous line every 24 hours	2.0	4.0	15	30.0	33	66	2.62	87.3	M
Therapy	Using small size and gauge needle during injection of medications.	1.0	2.0	4.0	8.0	45	90	2.88	96.0	H
	Avoiding suppositories, rectal treatment.	1.0	2.0	18	36.0	30	60	2.54	84.6	M
	Avoiding use rectal thermometer.	1.0	2.0	19	38.0	28	56	2.46	82.0	M
	Using laxative during provide care to patients.	2.0	4.0	18	36.0	30	60	2.56	85.3	M
	Inspecting I.V. site each time.	3.0	6.0	4.0	8.0	43	86	2.8	93.3	H
	Placing pieces of sterile gauze around the site of canula and change when soiled.	3.0	6.0	8.0	16.0	39	78	2.72	90.6	H
	Changing canula every 48 hours.	17	34	11	22.0	21	42	2.04	68.0	L
	Label site of canula.	2.0	4.0	18	36.0	30	60	2.56	85.3	M
	Cleaning site of canula with antimicrobial solution before venipuncture.	14	28	11	22.0	25	50	2.22	74	L
	Replacing blood and platelets with transfusion as prescribed.	2.0	4.0	19	38.0	29	57	2.54	84.6	M

No.	Items	Never		Sometime		Always		MS	RS	E.
		f	%	f	%	f	%			
Dietary	Changing drinking water every 8 hours.	9.0	18	12	24.0	29	57.9	2.4	80.0	M
	Avoiding outside reach diet.	1.0	2.0	18	36.0	31	62	2.6	86.6	M
	Restricting fresh salads.	0.0	0.0	10	20.0	40	80	2.8	93.3	H
	Cooking diet well before provided to patients.	5.0	10	39	78.0	6.0	12	2.02	67.3	L
	Taking snacks or nutritional drinks frequently.	16	32	18	36.0	16	32	2.0	66.6	O.C
	Having diet which is rich with protein.	4.0	8.0	20	40.0	26	52	2.44	81.3	M
	Increasing intake of diet which is rich with Vit.A.	6.0	12	13	26.0	31	62	2.5	83.3	M
	Discussing with patient's family about type of diet that it will be brought to patient.	6.0	12	27	54.0	17	34	2.22	74	L
	Avoiding diet contain raw pepper and spices.	19	38	16	32.0	15	30	1.92	64.0	O.C
	Avoiding Cold meats, salads, and fresh fruits.	9.0	18	28	56	13	26	2.08	69.3	L
	Taking no tap water or still mineral water.	8.0	16	23	46.0	19	38	2.22	74	L
Exercises and/or daily activities	Encouraging deep breathing exercise.	19	38	6.0	12.0	25	50	2.12	70.6	L
	Making period of activities and exercises.	17	34	5.0	10.0	27	54	2.16	72	L
	Encouraging daily activities.	14	28	9.0	18.0	26	52	2.2	73.3	L
	Avoiding strenuous exercises.	15	30	33	66.0	1.0	2.0	1.68	55.9	O.C
Laboratory Specimens	Sending specimens to the laboratory as being placed in a sealed plastic bag with a biohazard emblem.	21	42	26	52.0	3.0	6.0	1.64	54.6	O.C
	Placing specimens in a securely closed primary container.	18	36	28	56	4.0	8.0	1.72	57.3	O.C
	Placing requisition slips placed in the pocket on the outside of the plastic bag.	7.0	14	38	76.0	5.0	10	1.96	65.3	O.C
Transmission-Based Precautions (Airborne , Droplet ,and Contact Precautions)	Placing the patient in a private room which has negative air pressure, 6 to 12 air changes per hour.	20	40	8.0	16.0	21	42	1.98	66.0	O.C
	Patients, who are infected with the same microorganism, should be placed together If a private room is not available.	20	40	24	48.0	6.0	12	1.72	57.3	O.C
	Wearing a respiratory device when entering the patient's room.	17	34	17	34.0	16	32	1.98	66.0	O.C
	Wearing a mask if working within 3 feet of the patient.	14	28	6.0	12.0	30	60	2.32	77.3	L
	Wearing gloves and gown.	8.0	16	16	32.0	26	52	2.36	78.6	M
	Limiting movement of the patient outside the room.	4.0	8.0	16	32.0	30	60	2.52	84.0	M
	Availability of air filter.	4.0	8.0	19	38.0	27	54	2.46	82.0	M

This table reported that the evaluation of relative sufficiency was low on 32 (33.7%) items, moderate on 25 (26.3%) items and high on 8 (8.4%) items, while 30 (31.6%) was out of comparison.

Table 4. Association between ages, gender, level of education, years of experience in burns wards, training sessions and Nurses' practices scores.

Scores Age	Good	Fair	Poor	Total	χ^2 obs.	Sig.
	F	F	F	F		
Less than 20 years	1	1	0	2	7.156	NS
20 – 29 years	4	6	6	16		
30 -39 years	3	14	4	21		
40 – 49 years	4	4	2	10		
50 years and more	0	1	0	1		
Total	12	26	26	50		
P≤0.05 df = 8 χ^2 crit. = 15.507						
Scores Gender	Good	Fair	Poor	Total	χ^2 obs.	Sig.
	F	F	F	F		
Male	8	17	6	31	0.971	NS
Female	4	9	6	19		
Total	12	26	12	50		
P≤0.05 df = 2 χ^2 crit. = 5.99						
Scores Level of Education	Good	Fair	Poor	Total	χ^2 obs.	Sig.
	F	F	F	F		
Nursing Intermediate School graduate.	3	4	2	9	6.452	NS
Nursing High School graduate.	2	15	4	21		
Nursing Institute graduate.	6	6	5	17		
Nursing college graduate.	1	1	1	3		
Total	12	26	12	50		
P≤0.05 df = 6 χ^2 crit. = 12.592						

Scores years of Experience in the burns wards	Good F	Fair F	Poor F	Total F	χ^2 obs.	Sig.
Less than 1 year	4	7	1	12	20.805	HS
1 – 5 years	3	15	11	3		
6 – 10 years	5	1	0	5		
16 -20 year	0	2	0	0		
21 year and more	0	1	0	0		
Total	12	26	12	12		
P≤0.05 df = 8 χ^2 crit. = 15.507						
Scores Training Sessions	Good F	Fair F	Poor F	Total F	χ^2 obs.	Sig.
Yes	6	10	0	16	7.933	HS
No	6	16	12	34		
Total	12	26	12	50		
P≤0.05 df = 2 χ^2 crit. = 5.991						

This table indicates that there is no significant association between ages, gender, level of education and nurses' practices scores, while there is significant association between years of experience in burns wards, training sessions and nurses' practices scores.

Discussion of the Results:

Through the data analysis distribution of demographic variables, the present study reported that the age majority is (30-39) year which accounts for 21 (42 %).Most of the sample are male 31 (62%), 21 (42 %) graduate from nursing high school. Most of the nurses 33 (66%) were married. Most of the nurses were working in Al-Yarmouk Teaching Hospital.

15(30%) with (6-10) years of employment in nursing, 29 (58%) with (1-5) years of experience in burns wards.

Concerning training sessions in the isolation techniques for patients with burns, the table (1) indicated that high percentage (68%) of the nurses don't have training sessions in the isolation techniques.

(66%) of sample had no continue education inside hospital, and finally most of nurses had (62%) no pursue education by continuing education.

Table (2) indicated that in the majority 35(70%) of study sample the sources of experience to using isolation techniques for patients with burns was from working with these patients.

This result agree with results obtain from study done by (Granger, 2009) which indicated that the highest percentage 21(42%) of nurses at (30-39) years old, and present the highest percentage (58%) of nurses are male , the highest percentage but level of education disagree with my study that revealed in study the highest percentage (90%) are nursing college graduates ,the highest percentage (60%) have (6-10)years of employment in nursing ,and highest percentage (65%) have (1-5) years of experience in the burns wards[9].

Table (3) shows that the low relative sufficiency in thirty two items are related to (Washing hands before the entering to the patient's room, Wearing of the gloves after washing hand, Washing hands after leaving the patient's room, Washing hand from above down ward, Using antimicrobial soap for hand washing, Using an antimicrobial agent or an antiseptic agent, Wearing of sterile gloves when drugs are given for patient, Changing Gloves between patients, Removing a soiled gown carefully, Wearing surgical mask for protection from large particle droplets, Removing a soiled Cover of head carefully, Writing isolation instructions and attaches on door of the patient's room, Don't allow fresh flowers, Cleaning reusable equipment with soap and water, Using hot water and detergents to dishwashers, Elevate of said rail for bed's patient, Using antiseptic solution to wash patient's mouth, Using soft and smooth brush to clean patient's teeth, Preventing skin dryness with water soluble lubricants, Keeping fingernails trimming before entering to patient's room, Keeping patient's fingernails cut and short before entering to room, Using hot water and laundry detergent to wash clothing, Changing cannula every 48 hours, Cleaning site of cannula with antimicrobial solution before venipuncture, Cooking diet well before provided to patients, Discussing with patient's family about type of diet that it will be brought to patient, Avoiding Cold meats, salads, and fresh fruits, Taking no tap water or still mineral water, Encouraging deep breathing exercise, Making period of activities and exercises, Encouraging daily activities, Wearing a mask if working within 3 feet of the patient).

The moderate relative sufficiency of twenty five items (Placing the patient in a special room which has positive air pressure 6 to 12 air changes per hour, Sterilizing the isolation room at least once daily, Washing walls, blinds, and curtains if soiled, Disposing single-use equipment correctly, Marking Containers which are used to transport contaminated items with a biohazard label, Using tan autoclave bags for keep patients of blood/body fluids, Hand washing following waste disposal, Covering the patient with surgical mask and blanket when transfer outside the room, Providing sterile soap, Avoiding the use of makeup, Providing for Oral hygiene after each mealtime, Using fingernails, scissors in offered uses round, Removing soiled Books, Magazines, and Toys, Monitoring and caring with central venous line every 24 hours, Avoiding suppositories, rectal treatment, Avoiding use rectal thermometer, Using laxative during provide care to patients, Label site of cannula, Replacing blood and platelets with transfusion as prescribed, Changing drinking water every 8 hours, Avoiding outside reach diet, Having diet which is rich with protein, Increasing intake of diet which is rich with Vit.A, Wearing gloves and gown, Limiting movement of the patient outside the room, Availability of air filter.).

The high relative sufficiency of eight items (Disposing single-use equipment correctly, Handling linen that is soiled with blood, fluids, secretions, or excretions, Preventing injuries from used scalpels, needles, or other equipment and place in puncture-resistant containers, Monitoring and recording of Vital Signs, Using small size and gauge needle during injection of medications, Inspecting I.V. site each time, Placing pieces of sterile gauze around the site of cannula and change when soiled, Restricting fresh salads).

While thirty items was out of comparison (Removing gloves before touching non-contaminated items and surfaces, Wearing of Gowns only once, Washing hands after removing gloves and gowns, Changing the face mask each 30 minute, Wearing respirator mask, Wearing Cover of head when care is provided for patients, Covering hair's head with caps completely, Covering the heads of patients with caps, Wearing surgical shoes during the entrance to isolation room, Removing a soiled shoe carefully, Sterilizing shoes every day, Keeping shoes in clean place, Taking microorganisms swap for patient's room each fifteen days, Using a plastic bag to keep patient's waste, Transporting linen that is soiled with blood, fluids, se-

cretions, or excretions, Processing linen that is soiled with blood, fluids, secretions, or excretions, Put the Patient in isolation room when white blood cells count is as Less than 1000/ mm3, Removing the series, the hand watch and the jewelries before patient entering to room, Making general hygiene only once a day, Using electrical razors to shave patient's hair, Monitoring and recording of signs and symptoms of infection, Taking snacks or nutritional drinks frequently, Avoiding diet contain raw pepper and spices, Avoiding strenuous exercises, Sending specimens to the laboratory as being placed in a sealed plastic bag with a biohazard emblem, Placing specimens in a securely closed primary container, Placing requisition slips placed in the pocket on the outside of the plastic bag, Placing the patient in a private room which has negative air pressure, 6 to 12 air changes per hour, Patients, who are infected with the same microorganism, should be placed together If a private room is not available, Wearing a respiratory device when entering the patient's room.)

This result disagree with study done by Tintinalli, 2010 which shows the most of items concerning with isolation techniques for patients with burns was moderate relative sufficiency [10].

Analysis of the result of the study showed that there is no significant association between ages, gender, level of education and nurses' practices scores, while there is significant association between years of experience in burns wards, training sessions and nurses' practices scores. Table (4)

This results agrees with study done by Buttaro, 2012, which showed that there is no relationship between nurses' practices scores and ages, gender of sample [11].

While the finding of study disagree with study done by Maenthaisong, et al., 2007, which indicates there is relationship between nurses' practices scores and level of education of sample, and agree with the presented study that there is significant association between years of experience in burns wards, training sessions and nurses' practices scores[12].

Conclusion:

The study concluded that the more years of work with the nurses working in the field care of patients with isolated burns increased their excellent performance in the provision of care for burn patients isolated.

Recommendations:

1. Establishing new standard checklist suitable for nurses' practices concerning isolation techniques for patients with burns in Iraq depending on standard checklist of foreign and Arabic countries and upon the result of this thesis.
2. Developing assessment sheet for skills and daily note in isolation rooms for patients with burns.
3. Releasing handbook for nurses' practices concerning isolation techniques for patients with burns, it included brief explain with text and pictures.
4. Special training programs should be designed and constructed for nurses in this area to reinforce their skill and promote their experiences.

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