Evaluation of nurses' practices toward postoperative wound dressing in surgical wards

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المستخلص

الأهداف: تهدف الدراسة إلى تقييم مستوى الأداء والممارسات التمريضية من حيث مدى اقترابها أو ابتعادها عن معايير الأداء الأمثل المعتمدة عالمياً ضمن متغير تضميد الجروح الجراحية للمرضى الراقدين في الردهات الجراحية، وتحديد العلاقة بين مستوى الأداء والصفات الديموغرافية الإجتماعية لمقدّمي الرعاية التمريضية في تلك الردهات.

المنهجية: اعتمد تصميم وصفي تقويمي من ١٠ تشرين الثاني ٢٠١٠ ولغاية ١حزيران ٢٠١١ لتقييم الرعاية التمريضية المقدمة لمُدّة مابعد الجراحة ضمن متغير تضميد الجروح الجراحية في دائرة مدينة الطب. حيث أجريت الدراسة في ثلاث مستشفيات (مستشفى بغداد التعليمي ومستشفى الشهيد غازي الحريري للجراحات التخصصية ومستشفى دار التمريض الخاص). اختيرت عينة غرضية مكوّنة من (٥٥) من الملاك التمريضي العاملين في الردهات الجراحية عند جمع البيانات. جمعت البيانات بعد أن تمّ اعتماد أداة العجلوني من قبل الباحثين ذات العلاقة بأغراض الدراسة و مكونة من جزئين رئيسين، جزء شمل صفحة البيانات الديموغرافية الإجتماعية ويحتوي (٦) فقرات وجزء يشمل الممارسات التمريضية ضمن صفحة المكوّنات الأساسية للدراسة ويقع في (٤) فقرات رئيسة ويندرج تحتها (٣٩) فقرة فرعية، وتمّ تحديد مصداقية محتوى الاستمارة من خلال (٧) خبراء من ذوي الاختصاص وثباتها من خلال حساب معامل الارتباط (بيرسن) والذي كانت قيمته مقبولة إحصائياً (r = 0.86). وجُمِعَت البيانات بطريقة المراقبة المباشرة وتأشير قائمة الأداء. بعد ذلك تمّ تحليل البيانات من خلال تطبيق التحليل الوصفي للبيانات (التكرارات والنسب المئوية) فضلاً عن الوسط الحسابي الموزون ومعامل الارتباط بيرسن باستعمال الحقيبة الإحصائية للعلوم الاجتماعية، الإصدار السادس عشر.

النتائج: أوضحت نتائج الدراسة أنّ الممرضات والممرضين ذوي المؤهل الأكاديمي الجامعي قد كان مستوى أدائهم مقبولاً بما فيه الكفاية مقارنة بالفئات التمريضة الأخرى. وكان مستوى أداء جميع الممرضين والممرضات بغض النظر عن جنسهم تقريباً ضمن نفس المستوى. وكان مستوى أداء الممرضات والممرضين ذوي الأعمار الكبيرة غير وافياً بالإلتزام بمعيار الأداء الأمثل من حيث التقيّد بتحوطات السيطرة على خمج الجروح الجراحية. كما وأظهرت الدراسة وجود علاقة ارتباط ذات دلالة إحصائية إيجابية قوية بين متغيري جودة أداء الممرضات والممرضين ضمن مُدّة مابعد العملية الجراحية لتضميد الجروح الجراحية ومستوياتهم التعليمية. وقد كشفت الدراسة بأنّ مستوى أداء الممرضات والممرضين الذين انخرطو في دورات تطوير الأداء لم يختلف عن اولئك من الذين لم يشتركوا في هكذا نوع من الدورات التدريبية.

التوصيات: أوصت الدراسة بضرورة اعتماد المعايير القياسية للممارسات التمريضية من قبل مقدّمي العناية الصحية، كما وينبغي أن تكون متاحة لكل ممرض وممرضة في المستشفى بصفة أدلة عمل مرجعية، كما وأوصت الدراسة بأهميّة السيطرة الصارمة على العدوى المنقولة عن طريق المستشفى من خلال الالتزام بالإحتياطات في هذا الجانب من قبل مقدمي الرعاية الصحية. فضلاً عن إشراكهم في دورات تدريبية شاملة متقدمة تكون متاحة لمقدّمي العناية الصحية مُكرّسة في طبيعتها نحو معايير الممارسة الآمنة المثالية.

Abstract:

Objective(s): The study aimed to assess the level of nursing performance and practices in terms of approaching or distancing itself from the optimal performance criteria universally adopted within the variable dressing surgical wounds of patients admitted to the surgical wards, and determine the relationship between the level of nurse's performance and socio-demographic characteristics of them in those wards.

Methodology: A descriptive assessing design was adopted from November the 10th, 2010 until June the 1st, 2011 to assess the nursing care provided practices for the postoperative period within the variable dressing surgical wounds in the complex of Medical City. Whereas the study was conducted in three hospitals; Baghdad Teaching Hospital, AL-Shahid Ghazi Hariri for surgical specialties, and nursing home hospital. A Purposive "non- probability" sample consisting of (55) nurses from those who working in surgical wards at the time of data collection. The data were collected after adapting AL-Ajloni questionnaire by the researchers that is dedicated to the purposes of the study and composed of two major parts; the first part includes the page of socio-demographic data which contains (6) paragraphs, and the second one includes the page of the major components of the study which contains (4) domains in (39) sub-domain. The validity of the questionnaire was determined by (7) experts in the specialty field. While, the reliability of the questionnaire was determined by calculating the correlation coefficient (Pearson), which was statistically acceptable value (r = 0.86). Data were collected through direct observant approach by the mean of the designed practice checklist. Thereafter, the data were analyzed through the application of descriptive analysis measures (frequencies and percentages), as well as weighted arithmetic mean and Pearson correlation coefficient by using (SPSS) Version 16.

Results: The findings of the study indicated that academic nurses had performed adequate practices relative to postoperative wound dressing than practical ones. All nurses regardless of their gender had performed almost at the same level of practices relative to postoperative wound dressing. Older nurses demonstrated inadequate practices concerning postoperative wound infection precautions. The quality of nurse's performance regarding postoperative dressing procedure was strong positive relationship with level of education. Nurses who had participated in training sessions performed the same practices of others without it.

Recommendations: standards practice guide lines should be available for every nurse in hospital; furthermore strict nosocomial infection control precaution should be followed by health care providers. In addition thorough advanced training courses should be available for nurses dedicated in its nature toward standards ideal safe practice.
Key words: Assessment, nurses' practices, wound dressing, surgical ward

Introduction:

Infection control practices form the backbone of nursing practice. Every day nurses protect themselves, their patients, and the public from infectious disease by washing their hands, using sterile techniques, following detailed isolation procedures, reprocessing patient-care equipment, and overseeing the infection control practices of the people they supervise [(1)]. Surgical site infection (SSI) is a type of healthcare-associated infection in which a wound infection occurs after an invasive (surgical) procedure [(2)]. It continues to be a major source of morbidity following operative procedures. It is considered that the dressing protects the wound against bacterial contamination, foreign material, trauma, absorbs exudates and provides compression, so wound dressing of the primarily sutured surgical wound with a sterile dressing till the stitches are removed represents the current practice among surgeons and nurses [(3)].furthermore SSI is usually associated with increased hospital stay, coast and lethality, because of that knowledge of the main risk factors for this type of infection is crucial for the establishment preventive measures regarding modifiable risk factors[(4s)]. Postoperative wound care should provide an ideal environment for wound healing. This is accomplished primarily through the use of dressings [(5)]. The majority of surgical site infections are preventable. Measures can be taken in the pre-, intra- and postoperative phases of care to reduce risk of infection [(2)]. Many nosocomial infections are caused by pathogens transmitted from one patient to another by way of health care workers (HCWs) who have not washed their hands between patients or HCWs who do not practice control measures such as use of hand disinfection, glove use etc[(6)]. As a health care provider we should pay attention to the fact that antibiotics provide little benefit to patients with severe sepsis and septic shock (because a majority die despite antibiotic therapy) whereas that either directly or in directly related to malpractice from the side of following the standards nursing care in dressing procedure [(7)]. Nowadays, there is a bewildering array of surgical dressings, and most hospitals have a tissue viability nurse to advise on the management of complex wounds, based on that we can figure out the crucial, irreplaceable nursing role [(8)]. Nurses also teach patients and their visitors to follow infection control practices during a patient's hospitalization and to continue these practices when they are needed after discharge. These routine practices help fight a growing number of infectious diseases and control the dramatic rise of antibiotic-resistant organisms. Yet, despite these efforts, hospital-acquired infections continue to spread [(1)]. Furthermore, according to the resent research production that In the future, as the population ages, the incidence of SSI is expected to sharply rise because the incidence is connected to age with a doubling of the rate in patients older than 64 years [(9)]. Importance of the current study can be showed through that According to the international committee on wound management today wound infection increased the financial cost on the patients and the hospitals in respect to Increase of the hospitalization, Increase the use of antibiotics, Increase in the consumption of medical supplies. Increase of time consuming for personnel in the health sector [(10)]. Furthermore postoperative wound infection was considered the most important health problem in Iraq hospitals. In spite of restricted policies and procedures related to disinfection and sterilization techniques, as well as following the appropriate management as noted in terms of patient's preparation preoperatively and through the surgery, therefore the importance of the standardized methods to wound care showed in this research paper lies in the fact that it can be successfully applied to all types of surgical wounds.

Methodology:

A descriptive assessing design was adopted from November the 10th, 2010 until June the1st, 2011 to assess the nursing care provided practices for the postoperative period within the variable dressing surgical wounds in the Medical Citydirectorate. Whereas the study was conducted in three hospitals (Baghdad Teaching Hospital, AL-Shahid Ghazi Hariri for surgical specialties, and nursing home hospital). A Purposive "non- probability" sample consists of (55) nurse from those who are currently working in surgical wards at the time of data collection. The data were collected after adapting AL-Ajloni

questionnaire by the researchers to measure the variable underlying the study. Such construction was employed through review of literature and related studies. Questionnaire consisted of two major parts, whereas the first part was dedicated to socio-demographic data of subjects which contains (6) items (age, gender, level of education, years of employment, experience in surgical ward and number of training sessions).while the second part (Checklist) was concerned with the assessing the nurses practices, while they were performing dressing procedures which consisted of (39) items[11]; whereas [(High score = 97.5- 117), (Moderate score = 58.5- 97.5), and (Low score = 39- 58.5)] ; (27) items related to surgical wound without drain and (12) items related to surgical wound with drain. These items were rated and scored as (3 for always), (2 for sometimes) and (1 for never). Content validity of the instrument was determined through a specialist panel of (7) experts. Rater-interrator reliability was determined through a computation of Pearson correlation for the scales. Correlations for the (39) items of checklist for nurses practices were (r = 0.86). Data were collected through the application of constructed observation technique and use of the constructed observation checklist as mean of data collection, the two investigators were nonparticipant in the procedures, observing nurses complete routine post-operative surgical wound dressing, whereas nursing personnel were assured that they were not being individually evaluated and that data were part of composite findings. Nursing staff quickly adjusted to the observers and its felt that modifications of behavior were at its minimal level. Such data collection was performed through the period of 5 December 2010 to 20 May 2011. The researchers used the appropriate statistical means in the data analysis which include descriptive data analysis (frequency and percentage) and inferential data analysis (mean of score and Pearson correlation coefficient).whereas mean of score less than (1.5) was considered low (L), from (1.5-2.5) was considered moderate (M), and greater than (2.5) was considered high (H). The data were analyzed through the use of Statistical Package of Social Sciences (SPSS) version 16.0.

Results:

Table 1. Distribution of Nurses (study sample) by their Sociodemographic Characteristics.

List	Variables	Frequency	Percent	Cumulative percent
Age (Years)	20-29	9	16.4	16.4
	30-39	17	30.9	47.3
	40-49	7	12.7	60.0
	≤ 50	22	40.0	100.0
	Total	55	100.0	
Gender	Male	41	74.5	74.5
	Female	14	25.5	100.0
	Total	55	100.0	
Level of education	Intermediate nursing school	0	0	0
	Secondary nursing school	29	52.7	52.7
	Nursing institute	17	30.9	83.6
	Nursing college	9	16.4	100.0
	Total	55	100.0	
Years of employment	1-5	9	16.4	16.4
	6-10	8	14.5	30.9
	11-15	9	16.4	47.3
	16-20	7	12.7	60.0
	21-25	7	12.7	72.7
	≤ 26	15	27.3	100.0
	Total	55	100.0	
Experience in surgical ward	1-5	13	23.6	23.6
	6-10	24	43.6	67.2
	11-15	3	5.5	72.7
	16-20	8	14.5	87.3
	21-25	7	12.7	100.0
	Total	55	100.0	
Number of training sessions	0	24	43.6	43.6
	1-2	10	18.2	61.8
	3-4	7	12.7	74.5
	5-6	7	12.7	87.3
	≤ 7	7	12.7	100.0
	Total	55	100.0	

This table shows that the majority (40%) of the study participants of more than 50 years old. Most of them (74.5%) were male; most of them (52.7%) were secondary nursing school graduate. The majority of them (27.3%) have more than 26 years of employment; most of them (43.6%) having from (6-10) years of experience in surgical ward, and most of them (43.6%) do not have training sessions at all.

Table 2. Mean of Score (M.S) for the Items of Nurses' Practices According to the Observation Frequency

	Practices	Always	Sometimes	Never	Mean of Score	Levels of Significant
I	**Preparation of patient and equipment**					
1	Review physician order for dressing change procedures	35	14	6	2.53	H
2	Prepare equipment	33	18	4	2.53	H
3	Identify the patient	2	38	15	1.76	M
4	Explain procedure to the patient	4	23	28	1.56	M
5	Instruct pt. not to touch area or sterile supplies	11	29	15	1.93	M
6	Provide privacy	10	24	21	1.80	M
7	Patient's position comfortably	10	37	8	2.04	M
8	Expose only wound site	9	18	28	1.65	M
9	Wash hands	9	31	15	1.89	M
10	Open sterile dressing sets on trolley (patient bedside)	34	20	1	2.60	H
11	Open bottle of antiseptic solution and pour into sterile basin	22	17	16	2.11	M
12	Place disposable bag within reach away from work area	15	39	1	2.25	M
II	**Applying of dressing technique**					
13	Remove rape, pull parallel to skin, and pull toward dressing remove remaining adhesive tape from skin	10	29	16	1.89	M
14	Wear disposable gloves	30	23	2	2.51	H
15	With gloved hand, carefully remove gauze dressing, one layer at a time, taking care not to dislodge drains or tubes, dehydrate with normal saline if necessary	9	44	2	2.13	M
16	Dispose soiled dressing in disposable bag	17	23	15	2.04	M
17	Remove gloves by pulling out the inside of them	25	21	9	2.29	M
18	Put on sterile gloves	31	8	16	2.27	M
19	Clean wound with antiseptic solution use gauze swab	39	11	5	2.62	H
20	Clean from top to bottom	16	38	1	2.27	M
21	From center to outside in a circular motion (clean from least contaminated area to most contaminated, use a separate gauze swab for each stoke, applying antiseptic ointment if ordered)	11	36	8	2.05	M
22	Use dry gauze to swab in same manner as in (19,20,21) to dry the wound	16	24	15	2.02	M
23	Cover the wound with sterile gauze	42	9	4	2.69	H
III	**Application of dressing technique for patients with drain**					
24	Clean site of drain as in step 19,20 and 21	11	29	15	1.93	M
25	Cut and remove suture a sin previous procedure	19	14	22	1.95	M
26	Instruct the patient to take a deep breath hold it	4	21	30	1.53	M
27	Grasping the drain by its full width at the level of skin	1	37	17	1.71	M
28	Pull the drain out by its required length	6	31	18	1.78	M
29	Apply dry sterile dressing to the drain	41	13	1	2.73	H
30	Remove gloves and dispose in bag	35	15	5	2.55	H
31	Apply tape over dressing (separate from drain)	13	27	15	1.96	M
32	Apply tape over drain	43	9	3	2.73	H
33	Assist patient to comfortable position	4	35	16	1.78	M
34	Dispose of supplies	9	30	16	1.87	M
35	Wash hands	5	43	7	1.96	M
IV	**Recording after dressing technique**					
36	Inflammation signs such as (hotness, redness, swelling, tenderness)	2	16	37	1.36	L
37	Infection signs- such as bad odor, pus	9	2	44	1.36	L
38	Drain –color, amount, odor	8	2	45	1.33	L
39	Record date and time	36	17	2	2.62	H

H=High , M=Moderate ,L=Low

Table (2) describes that the mean of score are highlevel on items (1, 2, 10, 14, 19, 23, 29, 30, 32, and 39). The M.S is low on items (36, 37, and 38). The mean of score are moderate on the remaining.

Table 3. Nurses' Practices and Demographic Characteristics

1.	**Nurses' practices / Age (years)**	**Adequate 97.5-117**	**%**	**Average 58.5-97.5**	**%**	**Inadequate 39-58.5**	**%**	**Total**
1.1	20-29	2	22.0	7	78.0	0	0.0	9
1.2	30-39	8	47.0	7	41.0	2	12.0	17
1.3	40-49	0	0.0	7	100.0	0	0.0	7
1.4	50 & above	2	9.0	19	86.0	1	5.0	22
	Total	12	22.0	40	73.0	3	5.0	55
2.	**Nurses' practices / Gender**	**Adequate 97.5-117**	**%**	**Average 58.5-97.5**	**%**	**Inadequate 39-58.5**	**%**	**Total**
2.1	Male	12	29.0	28	68.0	1	3.0	41
2.2	Female	0	0.0	12	86.0	2	14.0	14
	Total	12	22.0	40	73.0	3	5.0	55
3.	**Nurses' practices / Level of education**	**Adequate 97.5-117**	**%**	**Average 58.5-97.5**	**%**	**Inadequate 39-58.5**	**%**	**Total**
3.1	Intermediate nursing school	0	0.0	0	0.0	0	0.0	0
3.2	Secondary nursing school	2	7.0	24	83.0	3	10.0	29
3.3	Institute of nursing	1	6.0	16	94.0	0	0.0	17
3.4	College of nursing	9	100.0	0	0.0	0	0.0	9
	Total	12	22.0	40	73.0	3	5.0	55
4.	**Nurses' practices / Employment years**	**Adequate 97.5-117**	**%**	**Average 58.5-97.5**	**%**	**Inadequate 39-58.5**	**%**	**Total**
4.1	1-5	2	22.0	7	78.0	0	0.0	9
4.2	6-10	8	100.0	0	0.0	0	0.0	8
4.3	11-15	0	0.0	9	100.0	0	0.0	9
4.4	16-20	0	0.0	5	71.0	2	29.0	7
4.5	21-25	1	14.5	5	71.0	1	14.5	7
4.6	26 & above	1	7.0	14	93.0	0	0.0	15
	Total	12	22.0	40	73.0	3	5.0	55
5.	**Nurses' practices / Exp. in surgical ward**	**Adequate 97.5-117**	**%**	**Average 58.5-97.5**	**%**	**Inadequate 39-58.5**	**%**	**Total**
5.1	1-5	2	15.5	9	69.0	2	15.5	13
5.2	6-10	8	33.0	16	67.0	0	0.0	24
5.3	11-15	0	0.0	3	100.0	0	0.0	3
5.4	16-20	2	25.0	5	62.5	1	12.5	8
5.5	21-25	0	0.0	7	100.0	0	0.0	7
	Total	12	22.0	40	73.0	3	5.0	55
6.	**Nurses' practices / No. of training sessions**	**Adequate 97.5-117**	**%**	**Average 58.5-97.5**	**%**	**Inadequate 39-58.5**	**%**	**Total**
6.1	0	2	8.5	20	83.0	2	8.5	24
6.2	1-2	2	20.0	8	80.0	0	0.0	10
6.3	3-4	7	100.0	0	0.0	0	0.0	7
6.4	5-6	0	0.0	7	100.0	0	0.0	7
6.5	7 and above	1	14.5	5	71.0	1	14.5	7
	Total	12	22.0	40	73.0	3	5.0	55

***%= percent, Exp.= experience**

Table three highlights the facts that the dominant classes of assessing nurse's practice regarding nurse's age group are moderate focused mainly at age group (≤ 50) 86.0%, another finding of the current

study of nurses gender shows that male nurses are dominant since about (29.0%) of them are categorized under high practice level while (0%) of female nurses are shown at the same class. Beside that the study results indicated that all the segment of nurses with bachelor degree (100.0%) showed high practice level comparing with other nurses' educational backgrounds. in addition the findings highlight that those nurses with ≤ 26 year of employment showing the highest percentage (93.0%) with in moderate practice level. Once again, findings leads us to that moderate practice level are prominent in term ofnursesexperience in surgical ward with in (6-10) years of nurses' experience in surgical ward. Finally, it's clear that nurses who never attained training sessions in their entire carrier path in surgical care are the dominant which reflected by (83.0%) of them performed with in the category of moderate practice level.

Table 4. Correlation between nurse's socio-demographic characteristics and their practices

Correlation	Age	Gender	Education	Years of employment	Experience in surgical ward	Number of training sessions
Preparation of patient and equipment	-.036-	-.149-	.660**	-.033-	.105	.175
Applying of dressing technique	.157	-.091-	.277*	-.039-	-.104-	.002
Applying of dressing technique for patients who had drain	-.252-	-.694**	.391**	-.482**	-.060-	.073
Recording after dressing technique	-.227-	-.239-	.596**	-.315*	-.105-	.206
Total score of nurses practices	-.083-	-.357**	.620**	-.235-	-.025-	.139

**** Correlation is significant at the 0.05 level (1-tailed)**

*** Correlation is significant at the 0.05 level (2-tailed)**

This table shows that there is strong positive relationship between age with [years of employment (r = 0.914**) experience in surgical ward (r=0.720**) and number of training sessions (r=0.561**)] and strong positive relationship between level of education with [Preparation of patient and equipment (r=0.660**), recording after dressing technique (r=0.596**), and nurses practices (r=0.620**)].There is a strong positive relationship between years of employment with experience in surgical ward (r=0.657**) and there is a strong positive relationship between experience in surgical ward with number of training sessions (r=0 .799**). The table also shows there is strong negative relationship between gender with [level of education (r=-0.498**), number of training sessions (r=-0.534**), and applying of dressing technique for patients who had drain (r=-0.694**)], There is no relationship between number of training sessions with applying of dressing technique (r=0.002), There is moderate relationship between the remaining variables.

Discussion:

The standardization of post-operative dressings provided a reduction in the surgical site infection rate. It reduced work-time of that required from the health care providers, also provided nurses with better assessment and care of post-op incisions, and reduced exogenous contamination from suboptimal aseptic technique, provided antimicrobial protection of incisions in the early stages of wound healing and enhanced patient discharge education on the care of post-op incisions.

Assessing patient with a wound involves accurate assessment of both the wound and the patient's health status. The applied Wound Management framework utilizes three different continuums, each relating to a key wound parameter, the Wound Healing Continuum, the Wound Infection Continuum and the Wound Exudate Continuum [12].

A surgical wound is generally considered to be 'clean' and as a result is often judged as less of a clinical challenge than some other wound types. Most surgical wounds heal by primary intention, with the margins of the surgical incision closed using either stitches or clips. These are left in place until the edges heal. However, in certain circumstances, such as bacterial contamination of the wound or the presence of devitalized tissue, wounds can be deliberately left open after an operation, either to be sutured at a later date (delayed primary closure), or left to heal naturally by secondary intention. The key aims of surgical wound management should be to minimize physical trauma to the wound, prevent microbial invasion and ensure patient comfort. Unfortunately, post-operative complications do

occur, especially in wounds healing by secondary intention [13].

The findings of the study show that the majority (40%) of the age group were more than 50 years old. Most of the study sample (74.5%) was males. Most of them (52.7%) were secondary nursing school graduate. The majority of the study sample (27.3%) has more than 26 years of employment. Most of the study sample (43.6%) having from (6-10) years of Experience in surgical ward and most of them (43.6%) haven't training sessions as shown in table (1).

Furthermore, the results of the study show that the mean of score are high on items (review physician order for dressing change procedures, prepare equipment, open sterile dressing sets on trolley (bedside patient), wear disposable gloves, clean wound with antiseptic solution use gauze swab, cover the wound with sterile gauze, apply dry sterile dressing to the drain, remove gloves and dispose in bag, apply tape over drain, and record date and time). The mean of score are low on items (inflammation signs such as (hotness, redness, swelling, tenderness), infection signs- such as bad odor, pus, and drain color, amount, odor).The mean of score are moderate on the remaining items as shown in table (2).

In addition, table (3) highlights the facts that the dominant classes of assessing nurse's practice regarding nurse's age group were moderate focused mainly at age group (≤ 50) 86.0%, also another finding of the current study in term of nurses gender showed that male nurses were dominant since about (29.0%) of them were categorized under high practice level wile (0%) of female nurses were shown at the same class. beside that the study results indicated that all the segment of nurses with bachelor degree (100.0%) showed high practice level comparing with other nurses educational backgrounds. in addition the findings highlights that those nurses with ≤ 26 year of employment showing the highest percentage (93.0%) with in moderate practice level. once again findings lead us to that moderate practice level were prominent in term ofnursesexperience in surgical ward with in (6-10) years of nursesexperience in surgical ward. finally it's clear that nurses who never attained a training sessions in their entire carrier path in surgical care were the dominant which reflected by (83.0%) of them performed with In the category of moderate practice level..

Finally, the results of the study shows that there is a strong positive relationship between age with [years of employment (r= 0.914**) experience in surgical ward (r = 0. 720**) and number of training sessions (r = 0.561**)]

This means that the old age of nurses have increase in years of employment, experience in surgical ward, and the number of sessions. The study indicated that there is strong positive relationship between level of education with [Preparation of patient and equipment (r =0.660**), recording after dressing technique (r = 0.596**), and nurses practices (r = 0.620**)]. This mean the high level of education for academic nurses have increase in preparation of patient and equipment, recording after dressing technique, and nurses practices as general. There is strong positive relationship between years of employment with experience in surgical ward (r = 0.657**) this mean when increase years of employment increase of experience in surgical ward. There is strong positive relationship between experience in surgical ward with number of training sessions (r=0 .799**) this mean when increase number of training sessions increase of experience in surgical ward. The study also shows there is strong negative relationship between gender with [level of education (r = -0.498**), number of training sessions (r= -0.534**), and applying of dressing technique for patients who had drain (r= -0.694**)] this mean when increase in gender (male) decrease in level of education, number of training sessions, and applying of dressing technique for patients who had drain. There is no relationship between number of training sessions with applying of dressing technique (r= 0.002). There is moderate relationship between the remaining variables as shown in table (4).

An observational and sectional study entitled (quality assessment of the wound dressing procedure in patients at a university hospital) analyzed the quality of the wound dressing procedure performed on hospitalized patients at a medical surgical unit of a University Hospital, Using a check list, 168 wound dressings were observed between October and December 2005. The study observed 168 dressings, performed by 20 employees: 55% nursing technicians and 45% nursing auxiliaries, with a predominance of female professionals (70%), an average of 40 years old and an average period of eight years working in the nursing area. in which Dressing Procedure quality was analyzed based

on the Positivity Index (IP) and values ≥70% were considered satisfactory. For the preparation, the IP was 68%, 63%, 73% and 75% for patients with degrees I, II, III and IV, respectively; for execution, 70%, 69%, 71% and 75% and, for unit organization, it was ≥70% for all degrees. However, the items: validity time frame checking, respect for aseptic principles and maintenance of logical sequence of procedures were compromised. Rigorous execution of procedures allows for risk decrease and assures benefic results for patients, conferring quality to nursing actions [14].

In Surat Thani Province Thailand, a research team conducted another resembling descriptive research design to determine the associations of socio-demographic, predisposing, enabling, and reinforcing factors on the practice of nursing standard infectious control for AIDS precautions (NSICAP) including wounds dressing among the population of 144 professional nurses working in the emergency room of 20 government hospitals. In which about one third of the subjects (33.3%) were aged 30-40 years and 25.6% aged 25-29 years. The educational level was mostly at bachelor degree (95.0%). Most of the nurses had less than 4 years of working experience in an emergency room (43.1%), but others had 5-9 years (34.1%), and others more than 10 years (22.8%). The study found that about half (48.1%) of the overall score of nurse practice was poor and this reflected a low standard of practice to a high degree. When pinpointed to each item. The items where nurses practiced poorly (<80.0%) were protecting oneself from contamination such as wearing gloves without apron when handling the wound and caring for patients with spilled discharges. They also poorly disinfected the used instruments before sending them for sterilization [15].

Another publishedstudy focused in its content toward answering the question how evidence-based is nursing practice? Aimed to assess the level of nursing performance and practices in terms of approaching or distancing itself from the optimal performance criteria universally adopted within the variable of wounds care. Whereas the audit tool was developed with a checklist reflecting the common recommendations from 3 international practice guidelines, as well as organizational and clinical factors that may influence or reflect best practice, and the study concluded that several gaps were identified in the care provided. A standardized approach to care is needed that includes a comprehensive wound care [16].

A multicenter randomized controlled trial study in which participants were randomly allocated to control or intervention groups. Each participant completed the Kent Dressing Confidence Assessment tool. Subjects were then asked to apply the dressing to a wound model under the observation of either the principal investigator or a trained observer, who scored the accuracy of dressing application according to established criteria Whereas 173 nurses participated in the study. Among the control and intervention groups, there were 43 licensed practical nurses and 130 RNs, including diploma (n=7), associate degree (n= 65), bachelor's degree (n = 55), and master's degree (n=3) RNs. The most common category of work experience was category B (2-5 years) among the nurses. Forty-one nurses worked in a long-term care facility, 13 worked in home health care, 18 worked in long-term acute care, and the remaining 101 nurses worked in the acute care hospital. No statistically significant differences were found when groups were compared based on educational preparation, care setting worked, or years of experience. And the major study findings were that none of the 139 nurses who received traditional dressing packaging were able to apply the dressing to a wound model correctly. In contrast, 88% of the nurses who received the package with the educational guide attached to it were able to apply the dressing to a wound model correctly(X^2 =107.22, df = 1, *P* = .0001) [17].

Evaluation of a program implemented to reduce surgical wound infection in an acute care hospital in India: a clinical practice improvement project was the title of research paper aimed to improve nurse clinical practice through action research intervention of infection control measures, hand washing, and wound dressing practices. Whereas 40 nurses were observed during care providing (hand washing and wound dressing), and the study findings showed considerable improvement of nurses practice, which reflected on the number and severity of patient surgical wound infection reduction [18].

in An experimental pre-test post-test design study which was using repeat measures to test the hypothesis that is structured educational intervention based on the time framework would positively impact on community nurses' wound care knowledge and practice. In which data was collected using questionnaires, non-participant

observation and recording of data from patients' clinical records. Whereas the resultsshows that community nurses' wound care knowledge and practice improved significantly after training (t [39] = 17.37, p<0.001 and t [32] = 7.12, p<0.001, respectively) [19].

Furthermore, many explanations can be imagined to discuss the present study findings in terms of approaching or distancing itself from the optimal performance criteria universally adopted within the variable dressing surgical wounds of patients admitted to the surgical wards like Wound care is especially challenging when provided by multiple caregivers with varied educational and experiential backgrounds. Educating multiple persons to deliver competent wound care may appear especially overwhelming for agencies that lack a wound care specialist to ensure adequate education for all involved staff or lay care providers, from the other hand nurses compliance with standard practice correlates with perception of risk, knowledge of universal precautions, organizational safety climate and perceived conflict of interest. Beside that and according to recent reviews highlighted that wound care education does not necessarily result in improved practice, especially if participants have a negative attitude about a particular practice. All that should induced us toward creative strategy adoption

Finally we have to remember that traditional postoperative dressings have remained largely unchanged because they are both cheap and successful. Surgical wounds generally heal without problems, depending on the patient's comorbidities because there is little tissue loss, asepsis is maintained, tissues are handled gently and each layer is approximated so healing can be quick with minimal scarring [20] which put us as a health care provider to hold the responsibility of delivering the best care to our patient in term of the present research issue.

According to the current study findings, the study concluded that Academic nurses had performed adequate practices relative to postoperative wound dressing than practical ones.All nurses regardless of their gender had performed almost the same level of practices.Older nurses demonstrated inadequate practices concerning postoperative wound infection.The quality of nurse's performance relative to postoperative dressing procedure was strong positive relationship with level of education.and Nurses who had participated in training sessions performed the same practices of others.

Recommendations:

1. Great emphasis should be directed toward practical and old age nurses with respect to construction of educational and training programs that may motivate their orientation of wound dressing.
2. Highly qualified surgical nurses should be engaged in teaching other staff nurses in the tenderized dressing techniques of postoperative wounds.
3. Mandatory rules and regulations should be implemented throughout preoperative, intra-operative, and postoperativephases in order to maintain sterilization and to prevent surgical wound infection.
4. A policy should be initiated to avoid long stay in the hospital and antibiotics should be used in scientific way to prevent surgical wound infection.
5. Carry out postoperative studies to estimate the rate of infection for different type of wound.
6- Carry out follow-up study about the source of postoperative infection.
7. Carry out other studies to evaluate the practice of aseptic technique in operating room.

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