Assessment of Postoperative Nurses' Interventions for the Patients with Laparoscopic Cholecystectomy at Baghdad Teaching Hospitals

تقييم تداخلات الممرضين مابعد العملية لمرضى أزالة المرارة بالناظور في مستشفيات بغداد التعليمية

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المستخلص:

الهدف: تهدف الدراسة الى تقييم تداخلات الممرضين لمرضى مابعد عملية أزالة المرارة بالناظور، وتحديد العلاقة بين تداخلات الممرضين والصفات الديموغرافية لهم.

المنهجية: اجريت دراسة وصفية للمدة من ٢٠ تشرين الثاني ٢٠١٢ ولغاية ١ أيلول ٢٠١٣. اختيرت عينة غير احتمالية "غرضية" من (٥٠) ممرض و ممرضة يعملون في الردهات الجراحية في مستشفيات بغداد التعليمية (مستشفى بغداد التعليمي، مستشفى الجهاز الهظمي والكبد التعليمي، مستشفى الكندي التعليمي و مستشفى الكاظمية التعليمي). جمعت البيانات من خلال استخدام استبانة مصممة و مكونة من جزئين، الجزء الاول شمل صفحة البيانات الديموغرافية و يحتوي (١٠) فقرات و الجزء الثاني شمل صفحة (٥) فقرات رئيسية ويندرج تحتها (٤٦) فقرة فرعية لتداخلات الممرضين لمرضى مابعد عملية أزالة المرارة بالناظور ، و جمعت البيانات بطريقة الملاحظة المباشرة وتأشير قائمة تداخلات الممرضين، حددت ثباتية استمارة الاستبانة من خلال اجراء الدراسة المصغرة و حددت مصداقيتها من خلال مجموعة من الخبراء (١٢). استخدمت اجراءات التحليل الاحصائي الوصفي (التكرارات، النسبة المئوية، الوسط الحسابي، أنحراف معياري والاكتفاء النسبي) و اجراءات التحليل الاستنتاجي (معامل الثبات، معامل التوافق ومربع كاي) في تحليل البيانات بأستعمال الحقيبة الأحصائية للعلوم الاجتماعية، الأصدار العاشر.

النتائج: اظهرت نتائج الدراسة ان هناك ضعفا في تقييم تداخلات الممرضين لمرضى مابعد عملية أزالة المرارة بالناظور في مستشفيات بغداد التعليمية، كما واظهرت النتائج بأن الاستجابة على أغلب فقرات الدراسة كانت (٨٤،٧٨ %) ذات دلالة معنوية، بينما اظهرت النتائج عدم وجود علاقة معنوية بين تداخلات الممرضين وبين (الجنس، العمروعدد سنوات الخدمة)، وأيظا اظهرت وجود علاقة معنوية بين تداخلات الممرضين وبين (المستوى التعليمي، المشاركة في الدورات التدريبية، عدد الدورات و المدة الزمنية للدورة التدريبية التي شارك الممرضين فيها).

التوصيات: اوصت الدراسة بضرورة اعداد و تصميم برنامج خاص لتدريب كل ممرضي الردهات الجراحية للتداخلات التمريضية بعد العملية (أزالة المرارة بالناظور) داخل أو خارج العراق و اصدار كتيب لكل الممرضين ،بالاضافة الى زيادة عدد ممرضين خريجي كلية التمريض للتسجيل في الردهات الجراحية.

Abstract:

Objective: The study aimed to assess the postoperative nurses' intervention for the patients with laparoscopic cholecystectomy and to determine the relationship between Nurses' interventions and their demographic characteristics.

Methodology: Quantitative design (a descriptive study) was started from 20th November 2012 up to 1st September 2013. Non-probability (purposive sample) of (50) nurses, who were working in surgical wards, were selected from Baghdad teaching hospitals (Baghdad Teaching Hospital, Digestives System and Liver Teaching Hospital**,** AL-Kindy Teaching Hospital, and AL-Kadhimiyia Teaching Hospita). The data were collected through the use of a constructed questionnaire, which consisted of two parts; the first part includes the page of demographic data which contains (10) items and the second part which includes (5) domains in (46) sub-domain of postoperative nurses' interventions for the patients with laparoscopic cholecystectomy, through direct observant approach by the mean of the designed interventions checklist, Reliability of the questionnaire was determined through a pilot study and the validity through a panel of (12) experts. Descriptive statistical analysis procedures (frequency, percentage, mean of score, Standard Deviation and Relative Sufficiency), and inferential statistical analysis procedures (Reliability Coefficient, contingency coefficient and chi- square test) were used for the data analysis under application of the statistical package of social science (SPSS) ver. (10.0).

Results: The findings of the study indicated that there is a weak assessment of postoperative nurses' interventions for the patients with laparoscopic cholecystectomy at Baghdad teaching hospitals, and the findings indicated that the most of study items responding of questionnaire were (84.78%) significant differences. There was no significant relationship between nurses' gender, age, years of experience and their assessment, while there was significant relationship between the level of education, sharing in training sessions which established (by the hospital, by other hospitals, or by other institutions), duration of the training session, Number of training sessions and assessment of postoperative nurses' interventions.

Recommendations: The study recommended that special training session, concerning all nurses' surgical wards for postoperative nursing interventions (Laparoscopic Cholecystectomy Patient) at inside or outside Iraq, and booklets should be designated and presented to all nurses' surgical wards, in addition to increasing the number of professional nurses' graduate from the colleges of nursing to the enrolled in surgical wards.

Keywords: Assessment, Postoperative, Nurses' Interventions, Laparoscopic Cholecystectomy Patients.

Introduction:

The gallbladder is a pear-shaped organ located under the liver on the right side of upper abdomen (stomach). It stores bile that comes from the liver and helps in the digestion of food. Bile is carried by the bile duct to the intestines. If left untreated, gallstones may block the flow of bile and cause more swelling, infection, and abdominal pain [(1)].The gallbladder is not necessary to maintain good health [(2)]. After gallbladder is removed, bile flows directly from the liver to the intestines and digestion normally proceeds [(3)]. Several disorders include inflammation of the biliary system and carcinoma that obstructs the biliary tree. Gallbladder disease with gallstones is the most common disorder of the biliary system. Although not all occurrences of gallbladder inflammation (cholecystitis) are related to gallstones (cholelithiasis), more than 90% of patients with acute cholecystitis have gallstones [(4)]. Surgical removal of the gallbladder is recommended if gallstones (or other types of gall bladder disease) are causing problems. Techniques include laparoscopic cholecystectomy (LC) or open surgery (OC). The gall bladder is not a vital organ, so the body copes quite well without it [(5)]. Gallbladder removal is one of the most commonly performed surgical procedures in the United States. Today, gallbladder surgery is performed laparoscopically. The medical name for this procedure is LC [(6)]. In a laparoscopic cholecystectomy, small incisions (cuts) are made in abdomen. A laparoscope is a long metal tube with a light and tiny video camera on the end. This gives caregivers a clear view of the abdominal area while watching the images on a monitor. During this surgery, gallbladder and gallstones will be removed [(1)]. The primary aim of laparoscopic surgery is to perform the surgery with small puncture wounds for which it is surgery is called minimally invasive surgery. Rapid acceptance of laparoscopic surgery all over the world is mainly attributed to its cosmetic effects and early retains to normal activities and work [(7)]. In 5 to 10 out of 100 laparoscopic gallbladder surgeries in the United States, the surgeon needs to switch to an open surgical method that requires a larger incision [(8)]. Laparoscopic cholecystectomy has become the new standard for therapy of symptomatic gallstones. Approximately 700,000 patients in the United States require surgery each year for the removal of the gallbladder, and 80% to 90% of them are candidates for laparoscopic cholecystectomy, and the patient does not experience the paralytic ileus that occurs with open abdominal surgery and has less postoperative abdominal pain. The patient is often discharged from the hospital on the same day of surgery or within 1 or 2 days and resumes full activity and employment within one week after the surgery [(4)]. Cholecystectomy is safe, but complications can develop. The main disadvantage of laparoscopic surgery is a higher risk for injury of the bile duct, which connects the gallbladder and the liver. This rare complication can cause serious liver damage and requires additional, extensive surgery. Injury to the bile duct can occur during open surgery (Cholecystectomy) as well but is more prevalent with the laparoscopic procedure other potential complications: Bleeding, Complications from general anesthesia, Injury to other abdominal organs, Leakage of bile from the bile ducts into the abdomen and Wound infection, If there is drainage, bleeding, or swelling at any incision

site; pain that worsens or is not relieved by medication and comfort measures; or a sudden fever, the surgeon should contacted immediately. These symptoms may be indicating a postsurgical complication [9]. Because the patient is discharged soon and to prevent Potential complication after Laparoscopic surgery, the nurse close intervention is needed for relieving pain, adequate ventilation, intact skin, optimal nutritional intake and absence of complications [10]. Importance of the study can be showed through that at this time; Laparoscopic cholecystectomy has become the new standard of care for patients requiring the removal of the gall bladder. And to provide a safe and effective treatment for most patients with symptomatic gallstones, laparoscopic cholecystectomy appears to have become the procedure of choice for many of these patients; approximately 80% - 90% 0f patients are candidates for Laparoscopic cholecystectomy [6]. Benefits of minimally invasive or laparoscopic procedures include less post operative discomfort since the incisions are much smaller, quicker recovery times, shorter hospital stays, earlier return to full activities and much smaller scars. Furthermore, there may be less internal scarring when procedure is performed in a minimally invasive fashion compared to the standard open surgery. LC is a very safe operation; the overall complication rate is less than (2%), the complication rate for laparoscopic gallbladder surgery is similar to the complication rate of traditional open gallbladder surgery when it is performed by a properly trained surgeon [11]. LC decreases postoperative pain, decreases need for postoperative analgesia, shortens hospital stay from 1 week to less than 24 hours, and returns the patient to full activity within one week compared to one month after open cholecystectomy. LC is provides improved cosmetic and improved patient satisfaction as compared to OC [12]. During the postoperative period, nursing care focuses on reestablishing the patient's physiologic equilibrium, alleviating pain, preventing complications. Careful assessment and intervention assist the patient in returning to optimal function quickly, safely, and as comfortably possible [10].

Methodology:

A descriptive study was started from 20th November 2012 up to 1st September 2013. Non-probability of (50) nurses, who were working in surgical wards, were selected from Baghdad Teaching Hospitals (Baghdad Teaching Hospital, Digestives System and Liver Teaching Hospital**,** AL-Kindy Teaching Hospital, and AL-Kadhimiyia Teaching Hospita). The data were collected through the use of a constructed questionnaire by direct observant approach (mean of the designed interventions checklist), which consist of two parts:

Part one: Demographic Characteristics: This part includes the page of demographic data which contains (10) items, which included gender, age, level of education, years of experience in hospital, years of experience in surgical units, sharing in training sessions to postoperative nurses' interventions for the patients with (LC) which established by (the hospital, other hospitals, and other institutions), number and duration of the training session.

Part two: Assessment of postoperative Nurse's Interventions: This part which includes (5) domains in (46) sub-domain of postoperative nurses' interventions for the patients with (LC), these items are measured, scored and rated on a 3 level type likert scale (3) for always, (2) for sometimes and (1) for never. Reliability of the questionnaire was determined through a pilot study, this results shown that intra examiner (test & pretest) 0.9674 (15: 460), inter examiners 0.9587 (19:460), and reliability coefficients actual values of the

studied questionnaire's were calculated by using: alpha cronbach(0.8947), correlation between forms(0.7281), spearman-brown(0.8427), and guttman split-half(0.8423) in light of responses is successful and the validity through a panel of (12) experts. Descriptive statistical analysis procedures (frequency, percentage, mean of score, Standard Deviation, their assessment by cutoff points (66.67%) due to scores (1, 2, 3), and Relative Sufficiency, finally the conventional dichotomous responding "Weak, Moderate, and Good", in light of relative's sufficiency intervals " (33.33 - , 55.55 - , and 77.77 - 100)), and inferential statistical analysis procedures (Reliability Coefficient, contingency coefficient and chi- square test) were used for the data analysis under application of the (SPSS) ver.(10.0)

Results:

Table 1. Observed Frequencies and Percents of Demographical Characteristics variables with Comparison Significant

Demographic Variables	Groups	F.	%	Cum. Percent	C.S. (*) P-value
Gender	Female	20	40	40	Binomial P=0.203 (NS)
	Male	30	60	100	
Age Groups	18 – 23	2	4	4	χ^2= 11.880 P=0.065 NS
	24 – 28	11	22	26	
	29 – 33	12	24	50	
	34 – 38	6	12	62	
	39 – 43	8	16	78	
	44 – 48	3	6	84	
	≥ 49	8	16	100	
	Mean ± SD	35.76 ± 9.27			
Level of Education	Primary Nursing School Graduate	6	12	12	χ^2= 26.960 P=0.000 HS
	Secondary Nursing School Graduate	22	44	56	
	Nursing Institute Graduate	21	42	98	
	Nursing College Graduate	1	2	100	
Number of Years of Experience in Hospitals	1 – 5	15	30	30	χ^2= 7.80 P=0.099 NS
	6 – 10	10	20	50	
	11 – 15	10	20	70	
	16 – 20	3	6	76	
	≥ 21	12	24	100	
Number of Years of Experience in Surgical Units	1 – 5	23	46	46	χ^2= 30.0 P=0.000 HS
	6 – 10	14	28	74	
	11 – 15	7	14	88	
	16 – 20	1	2	90	
	≥ 21	5	10	100	
Training Sessions concerned to Postoperative Nurses' Interventions for the Patients with LC which established by the Hospital	Yes	3	6	6	Binomial P=0.000 (HS)
	No	47	94	100	
Training Sessions concerned to	No	50	100	100	Binomial

Table 1. Continues

Postoperative Nurses' Interventions for the Patients with LC which established by other Hospitals	Yes	0	0	100	P=0.000 (HS)
Training Sessions concerned to Postoperative Nurses' Interventions for the Patients with LC which established by other Institutions	Not sharing	50	100	100	Binomial P=0.000 (HS)
	Yes	0	0	100	
Number of Training Sessions	Sharing	3	6	6	Binomial P=0.000 (HS)
	Not sharing	47	94	100	
Duration of the Training Session	Less than One Week	3	6	6	Binomial P=0.000 (HS
	Not sharing	47	94	100	

*HS: Highly Sig. at P<0.01; NS: Non Sig. at P>0.05; F: frequency; %: Percentage; CS: Comparison Significant

This table shows that there are non-significant among levels of the studied groups of gender and, age variables, while it reports a highly significant, with different Levels of Education. The sample is reported male 30(60%); while at female is accounted for 20 (40%). The majority of the sample are reported at the range (24 – 33) yrs. old and accounted 23 (46%), In addition to that, the mean value of the total sample age is (35.76yrs) with standard deviation (9.27 yrs).The most of the studied samples indicate moderate levels, since 22(44%) of them are contrasted with secondary school graduation and 21(42%) having institute graduation. The results show that there are a highly significant, except with the number of years of experience in hospitals, which is reported as non significant, The majority of the sample is reported at the first interval (1 – 5) yrs. old and accounted 15 (30%), to the subjects of "Number of Years of Experience in Hospitals". And the most of the studied sample are reported at the first interval (1 – 5) yrs and accounted 23 (46%), to subjects of "Number of Years of Experience in Surgical Units".

With respect to the subjects of sharing training sessions course which established by the hospital, the samples who answered "Yes" were reported only 3(6%), while the leftover who answered with ''No" and accounted 47 (94%), by other hospitals 0(0%), and by other Institutions 0(0%) ", there is no one of them who answered with "Yes" among total sample. Regarding the subjects of "Number of Training Sessions", most of the studied sample are reported "Not sharing", and accounted 47(94), while the leftover answered "Sharing" and accounted only 3(6%).Finally, the respect to the subjects of "Duration of the Training Session", the samples who answered with "Less than One Week".

Table 2.1. Observed frequencies distribution for the initial responding of Questionnaire's items for studying Postoperative Nurses' Interventions with comparisons significant.

Assessment of Postoperative Nurses' Interventions items	Responses	F.	%	C.S. P-value
1. Nurses' Interventions concerning Relieving Pain				
Record levels of pain and characteristic (location, type, severity and Extension)	Never	50	100	P=0.000 HS
	Sometimes	0	0	
	Always	0	0	
Change the patient's position	Never	12	24	P=0.379 NS
	Sometimes	15	30	
	Always	23	46	
Helps the patient in a pillow or binder over the surgical incision during turn, Coughing and deep breathing	Never	26	52	P=0.000 HS
	Sometimes	14	28	
	Always	10	20	
Helps the patient during walking	Never	38	76	P=0.000 HS
	Sometimes	12	24	

Table 2.1. Continues

	Always	0	0	
Massage works to the patient's back	Never	40	80	P=0.000 HS
	Sometimes	10	20	
	Always	0	0	
Gives analgesic pain by doctor's prescription	Never	0	0	P=0.000 HS
	Sometimes	4	8	
	Always	46	92	
2. Nurses' Interventions concerning Improving Respiratory status				
Assesses the rate, depth and sound of breathing at least every quarter of an hour for the first hour, and every half-hour for the next two hours	Never	50	100	P=0.000 HS
	Sometimes	0	0	
	Always	0	0	
Record the rate, depth and breathing sound	Never	50	100	P=0.000 HS
	Sometimes	0	0	
	Always	0	0	
Raise the head of the patient's bed	Never	8	16	P=0.990 NS
	Sometimes	17	34	
	Always	25	50	
Placed the patient in the low Fowler's position	Never	9	18	P=0.001 HS
	Sometimes	16	32	
	Always	25	50	
Encourages the patient to turn, take deep breaths and Cough gradually	Never	18	36	P=0.000 HS
	Sometimes	13	26	
	Always	19	38	
Helps the patient to walk early with assigning the surgical incision site when coughing and walking	Never	33	66	P=0.003 HS
	Sometimes	14	28	
	Always	3	6	
Shows the patient how to support areas of operation wounds when coughing and walking	Never	16	32	P=0.000 HS
	Sometimes	8	16	
	Always	26	52	
3. Nurses' Interventions concerning Maintaining Skin Integrity and Drainage				
Record skin status, eye cornea and urine for change in color	Never	50	100	P=0.000 HS
	Sometimes	0	0	
	Always	0	0	
Record color, characteristic and amount of drainage	Never	43	86	P=0.000 HS
	Sometimes	6	12	
	Always	1	2	
Fasten the tubing to the dressings or to the patient's gown	Never	28	56	P=0.000 HS
	Sometimes	14	28	
	Always	8	16	
Install drainage bag	Never	10	20	P=0.368 NS
	Sometimes	12	24	
	Always	28	56	
Reassess the drainage every quarter of an hour	Never	50	100	P=0.000 HS
	Sometimes	0	0	
	Always	0	0	
Change the drainage tube dressing	Never	20	40	P=0.000 HS
	Sometimes	23	46	
	Always	7	14	
Examines the place of pain in the upper quarter of the abdomen and vomiting	Never	48	96	P=0.000 HS
	Sometimes	1	2	
	Always	1	2	

Table 2.1. Continues

Record the place of pain in the upper quarter of the abdomen and vomiting	Never	50	100	P=0.000 HS
	Sometimes	0	0	
	Always	0	0	
Frequent changes of the outer dressings and protection of the Skin from irritation.	Never	43	86	P=0.000 HS
	Sometimes	6	12	
	Always	1	2	
Turn the patient position frequently	Never	11	22	P=0.527 NS
	Sometimes	14	28	
	Always	25	50	
Record the color and texture of the patient waste products	Never	50	100	P=0.000 HS
	Sometimes	0	0	
	Always	0	0	
Assess intake and output fluids to the patient	Never	23	46	P=0.000 HS
	Sometimes	13	26	
	Always	14	28	
4. Nurses' Interventions concerning Improving Nutritional status				
Gives fluid by intravenous infusion after the operation, according to the medical prescription	Never	0	0	P=0.000 HS
	Sometimes	8	16	
	Always	42	84	
Examines the state of swallowing and bowel sounds	Never	45	90	P=0.000 HS
	Sometimes	5	10	
	Always	0	0	
A soft diet is started after bowel sounds return, which is usually the next day	Never	16	32	P=0.000 HS
	Sometimes	22	44	
	Always	12	24	
Record intake and output fluids to the patient	Never	27	54	P=0.000 HS
	Sometimes	11	22	
	Always	12	24	
Assesses the symptoms of the digestive system (Nausea, vomiting)	Never	23	46	P=0.000 HS
	Sometimes	17	34	
	Always	10	20	
Assesses the color and texture of the patient waste products	Never	49	98	P=0.000 HS
	Sometimes	0	0	
	Always	1	2	
5. Nurses' Interventions concerning Monitor and managing potential complication				
Reads and check patient chart after exit from the operation carefully to see how the operation took place to avoid complications in the surgical unite	Never	14	28	P=0.056 NS
	Sometimes	11	22	
	Always	25	50	
Measuring and monitoring vital signs every quarter of an hour for the first hour, and every half-hour for the next two hours	Never	48	96	P=0.000 HS
	Sometimes	2	4	
	Always	0	0	
Record vital signs : Blood Pressure	Never	8	16	P=0.047 S
	Sometimes	9	18	
	Always	33	66	
Record vital signs : Pulse Rate	Never	31	62	P=0.000 HS
	Sometimes	8	16	
	Always	11	22	
Record vital signs : Respiratory Rate	Never	32	64	P=0.000

Table 2.1. Continues

	Sometimes	7	14	HS
	Always	11	22	
Record vital signs : Temperature	Never	3	6	P=0.003 HS
	Sometimes	10	20	
	Always	37	74	
The nurse ensures that the dressing is clean, dry, and intact	Never	7	14	P=0.228 NS
	Sometimes	12	24	
	Always	31	62	
Inspects the surgical dressing and any drains for bleeding	Never	7	14	P=0.228 NS
	Sometimes	12	24	
	Always	31	62	
Record the signs and symptoms of shock through the measurement of vital signs	Never	46	92	P=0.000 HS
	Sometimes	4	8	
	Always	0	0	
Monitor and record Signs that appear on the patient in situations of internal bleeding, such as excessive sweating and yellowing	Never	47	94	P=0.000 HS
	Sometimes	3	6	
	Always	0	0	
Instructs the patient and family to record any change in the color of the waste (stool)	Never	33	66	P=0.000 HS
	Sometimes	9	18	
	Always	8	16	
Assesses the patient for increased tenderness and rigidity of the abdomen	Never	43	86	P=0.000 HS
	Sometimes	6	12	
	Always	1	2	
Record the signs and symptoms of gastrointestinal (Nausea and vomiting)	Never	49	98	P=0.000 HS
	Sometimes	1	2	
	Always	0	0	
Record the pain and abdominal distension for the patient	Never	50	100	P=0.000 HS
	Sometimes	0	0	
	Always	0	0	
The nurse advises the patient for follow-up after discharge from the hospital regularly	Never	16	32	P=0.014 S
	Sometimes	13	26	
	Always	21	42	

HS: High Sig. at P<0.01; NS: Non Sig. at P>0.05; F: frequency; %: Percentage; CS: Comparison Sig; P: probability level.

This table shows that the most of the studied items of the five parts; relieving pain, improving respiratory status, maintaining skin integrity and drainage, improving nutritional status, monitor and managing potential complication are reported significant differences, except of only (7) items; change the patient's position, raise the head of the patient's bed, install drainage bag, turn the patient position frequently, reads and check patient chart after exit from the operation carefully to see how the operation takes place to avoid complications in the surgical unite. The nurse ensures that the dressing is clean, dry, and intact, and inspects the surgical dressing and any drains for bleeding are reported a non-significant. The items having reversed assessment in light of subjects responses scale scoring of questionnaire's items are 39 items, and accounted (84.78%).

Table 2.2. Summary statistics for the core responding of Questionnaire's Main Domains for Assessment of Postoperative Nurses' Interventions.

Main Domains	No.	M.S.	S.D.	R.S.	Ass.
1. Nurses' Interventions concerning relieving pain	50	1.710	0.293	57.0	Mod.
2. Nurses' Interventions concerning Improving Respiratory status	50	1.754	0.413	58.5	Mod.
3. Nurses' Interventions concerning Maintaining Skin Integrity and Drainage	50	1.432	0.254	47.7	Weak
4. Nurses' Interventions concerning Improving nutritional status	50	1.723	0.319	57.4	Mod.
5. Nurses' Interventions concerning Monitor and managing potential complication	50	1.700	0.286	56.7	Mod.

M.S: mean of score; S.D: standard deviation; R.S: relative sufficiency; P: probability level; No: Number; Ass: Assessment.

The results shows that the main domains (1, 2, 4, and 5), had reported moderate assessment, since there (RS) full inside interval (55.55 – 77.76), and while part (3) had reported weak assessment, since there (RS) full inside interval (33.33 – 55.56).

Table 2.3. Overall Assessment of Postoperative Nurses' Interventions For the studied sample.

Statistics	No.	Range	Min.	Max.	G.M.S.	S.D.	R.S.	Ass.
	50	1.02	1.18	2.2	1.664	0.257	55.46	Weak

Min: minimum; Max: maximum; G.M.S: global main of score; S.D: standard deviation; R.S: relative sufficiency; No: Number; Ass: Assessment.

The result shows that an overall assessment of the studied parts is accounted "Weak", since there relative sufficiency full inside interval (33.33 – 55.56).

Table 3. Association between Demographical, Experience and Training Factors and the studied assessment of Postoperative Nurse's Interventions according to "Under/Upper" Cutoff point.

Main Domain	Some Related and Demographical Characteristics X Ass. Status	Contingency Coefficients	Approx. Sig.	C.S.(*)
Overall Ass.	Gender	0.000	1.000	NS
	Age Groups	0.242	0.794	NS
	Level of Education	0.403	0.021	S
	Years of Experience in Hospitals	0.105	0.968	NS
	Years of Experience in Surgical Units	0.195	0.742	NS
	Sharing in Training Sessions concerned to Postoperative Nurse's Intervention for the Patients with LC.	0.431	0.001	HS
	Number of Training Sessions	0.431	0.001	HS
	Duration of the Training Session	0.431	0.001	HS

*HS: Highly Significant. at P<0.01; S: Significant. at P<0.05; NS: Non Significant. at P>0.05; CS: Comparison Significant; P: probability level; Sig: Significance.

The results reported that gender, age group, years of experience in hospitals and surgical units variables, had non-significant relationship with the overall assessment of (Postoperative Nurses' Interventions follow up) according to distribution of "Under/Upper" Cutoff point (66.67%), for the global mean of score values, while the level of education has represented a meaningful indicator for distinguished the level of assessment due to follow up with significant relationship. In addition to that, "Sharing in Training Sessions courses" have represented a significant relationship.

Discussion:

Through the data analysis distribution of demographic variables, indicate that most of the study samples are males 30(60%). The results of this study approximately are similar, which reveal those over (50%) of the nurse's staff are males [13]. The majority of the samples are reported at the range (24 – 33) yrs. old and accounted 23 (46%), which

indicates that approximately half of the studied samples. A cross-sectional survey research was conducted at surgical wards for three teaching hospitals in Ireland shows that majority of the nurses working at the range (20-30) yrs, and accounted 53(56.4%) [14]. Regarding the subjects of educational levels, most of the studied samples indicate moderate levels, since of 22(44%) them are in contrast with secondary school graduation and 21(42%) having institute graduation. This finding comes along with a study at Baghdad Teaching Hospitals that most of the nurses at surgical wards in post operative period are 29(52.7%) secondary nursing school graduation and 17(30.9%) institute graduation [15]. With respect to the subjects of "Number of Years of Experience in Hospitals", the majority of the sample is reported at the first interval (1 – 5) yrs. old and accounted 15 (30%). Regarding the subjects of "Number of Years of Experience in Surgical Units", most of the studied sample are reported at the first interval (1 – 5) yrs. old and accounted 23 (46%), and these findings come in agreement with reports that majority of the years of experience study sample are in hospitals at (1-5), 32(34.0%), and also reports in surgical ward at (1-5) yrs, 37(39.4%) [14]. In addition, the results of this study at Baghdad teaching hospital reports that the majority of the nurses sample 15(27.3%) have more than (26) yrs of employment at hospitals, and also report that most of the nurses sample 24(43.6%) from (6-10) yrs of experience in surgical wards [15]. The findings report that the majority 47 (94%) of the study sample have no opportunity to be sharing in training sessions concerned to postoperative nurses' interventions for the patients with (LC) established by the hospital. All the study samples 50 (100%) have no opportunity to be sharing in training sessions concerned to postoperative nurses' interventions for the patients with (LC) established by other hospitals, and the same percent 50 (100%) have no opportunity to be sharing in training sessions concerned to postoperative nurses' interventions for the patients with (LC) established by other Institutions neither outside Iraq nor inside Iraq. Regarding the subjects of "Number of Training Sessions", the majority 47(94) of the study sample have not sharing in any training sessions, while only 3(6%) answered that their participation is less than one week, therefore they did not have enough time or duration of training session. This result supported evidence is available in the study that indicated there is a lack of opportunity for continuing education of health personnel for nursing, shortage of teachers and the limited funding for research [17] These findings of the study are also supported with (Bushra, 2007) who shows that the majority of the nurses (58.3%) do not attend any training session after their graduation and during employment years at surgical wards [16]. Based on the researcher's point of view, all nursing staff in surgical wards should be enrolled in training sessions to improve their interventions for patient toward post-operative Laparoscopic cholecystectomy.

Part II: Discussion of Initial Responding of Questionnaire's Items for Studying Assessment of Postoperative Nurses' Interventions:

Table (2-1) shows that most of (46) the studied items for the five parts report 39 (84.78%) significant differences, except (7) items report non significant. This result shows that most of the assessment is weak to ward postoperative nurses' intervention related to insufficient structural continues education programs as a result of policy of these hospitals and the policy of Ministry of Health for nursing education, insufficient nursing resources like nursing library, online resources, nursing journals. Table (2-3) shows that the four parts are named "relieving pain, improving respiratory status, maintaining improving nutritional status,

monitor and managing potential complication", report moderate assessment, since there is relative sufficiency full inside interval (55.55 – 77.76) , and while part of "Maintaining Skin Integrity and Drainage" had reported weak assessment, since there is relative sufficiency full inside interval (33.33 – 55.56). The study are reports the agreement that all nursing records and vital signs flow sheets are moderate, but disagreement that fluids intake and output sheets (81.4%) are of good quality [18]. Table (2-4) shows that an overall assessment of the studied parts is accounted "Weak", at (55.46) relative sufficiency full inside interval (33.33 – 55.56). These findings are agreement with a study are report reduced levels of physical care require for elective surgical patient and changing aspects of nursing intervention [19].

Table (4-3) In relation to Nurse's Demographic Characteristic and Significant Association with Assessment of Post-operative Nurse's Interventions:

The results of the present study reveal that there is no significant relationship between "gender, age groups" and assessment of postoperative nurses' interventions. Shows that there is strongly positive correlation between "age, gender" and nursing employment at surgical wards [18]. The study shows that there is a significant relationship between level of education and assessment of postoperative nurses' interventions. This finding agrees with the study are reports that there is a relationship between the respondents' score and level of education [14]. The study shows that there is no significant relationship between years of experience and assessment of postoperative nurses' interventions. The result which is shows that there is less than ideal correlation ship nurse education programmes for the last 5 years postoperative nursing intervention [20]. The results indicate that there is no significant association between years of experience in the surgical wards and assessment of postoperative nurses' intervention that comes as a result of an inadequate structural education for the nurses who are working in surgical wards and lack of effective nurse interventions evaluation for after surgery period.

Regarding the relationship between sharing in training sessions, duration and number training sessions with assessment of postoperative nurses' interventions, the present study indicates that there is a significant relationship.

These findings are shows that there is significant relationship between nursing performance at surgical wards and level of education, training session [16]. This finding is agreement with that the education and psychological aspects of care are also important in development intervention at elective surgical nursing [19].

The study results reveal that only (6%) of them have an opportunity to participate in training courses; This may be due to the policy of the ministry of health or policy of the hospitals and this have an influence on the assessment postoperative nurses' intervention because training courses inside or outside Iraq are very important to improve intervention at surgical wards. In general, the researcher suggests that to provide a high quality of nursing interventions for postoperative patient at surgical wards, nurses should be supported by training courses inside and outside Iraq, the continuation of the education of nurses who are work in surgical wards and the use of guidelines for interventions after surgery, that improve the quality and intensity of nurses' care for patient and increase the nurses' level of information to prevent complications of the laparoscopic cholecystectomy. Therefore, effective intervention cannot be achieved as long as the nurse has a deficient knowledge or is affected by attitudinal barrier**.**

Recommendations:

The researcher is recommended application of special training sessions should be designated and presented to all surgical ward nurses that include specific training programs about postoperative interventions and training session should be designated as regular courses and included the updated information after the surgery of laparoscopic cholecystectomy patients. Designated and distributed a booklet to all nurses who work in surgical wards including nursing interventions standard for postoperative laparoscopic cholecystectomy surgery.

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