

## NURSES' PERFORMANCE REGARDING CARE OF WOMEN UNDERGOING HYSTERECTOMY AND WOMEN SATISFACTION IN PORT SAID HOSPITALS

*Seham Shehata Ibrahim<sup>1</sup>, Noor El-hoda Mohamed El-shabory<sup>2</sup>, Omnia Hamdy Abd El-Raouf Abou El-gheet<sup>3</sup>*

*Assist Prof. of Maternity, Gynecology and Obstetrics Nursing<sup>1</sup>, Lecturer of Maternity, Gynecology and Obstetrics Nursing<sup>2</sup>, H.R Training in El-Ramad Specialty Hospital<sup>3</sup>  
Faculty of Nursing – Port Said University*

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### ABSTRACT

**Background:** Hysterectomy is a commonly performed gynecological surgical procedure. It refers to the removal of the uterus, hysterectomy may involve a removal of the fallopian tubes and ovaries, it depends on all the reasons of the surgery and type of the procedure. **Aim:** The study intended to evaluate nurses' performance regarding the care of women undergoing hysterectomy and women satisfaction in Port Said hospitals. **Design:** A descriptive research was utilized. **Sitting:** Gynecological specialty hospital and El-Hayah Port Fouad. **Subjects:** The study subjects consisted of 50 nurses and 71 women undergoing hysterectomy. **Tools:** Data were collected by the use of three tools namely; Structured interview which included two parts; part 1: Personal characteristics of nurses or patients and part 2: questionnaire of nurses' knowledge regarding care of women undergoing hysterectomy, Observational checklist about nurses' practice regarding care of women undergoing hysterectomy, and satisfaction scale regarding the care of women undergoing hysterectomy. **Results:** The vast majority of nurses had correct knowledge regarding care of pre-operative (92%, 78%, 84%, 90%) and post-operative care (72%, 96%, 88%, 74%, 70%). Also, the majority of the women undergoing hysterectomy are satisfied regarding nursing care. Additionally, the satisfied practice was higher among studied nurses. **Conclusion:** The nurses had an effective role towards care of women who undergoing surgical hysterectomy and able to provide practical advice on different issues regarding to health education advice and promotion. **Recommendations:** An educational program aimed at training nurses how to improve physical and psychological recovery of post-operative patients as rapidly as feasible.

**Keywords:** Nurses' performance, care, women satisfaction, hysterectomy.

## **INTRODUCTION**

Internationally, Hysterectomy is most common surgical procedure after caesarean section (Ezzat, 2019; Centers for Disease Control and Prevention, 2017). It helps to diminish many gynecological problems. Hysterectomy is often performed among females ranged from 40 and 45 age, about 37% to 39% of women have had the surgery (Elgi & Viswanath, 2017).

The overall incidence of hysterectomy in recent obstetrics is 0.05 %, however there are significant variation in cases, depending on modern obstetric care, antenatal care awareness, and the success of family planning in different parts of the world. Recently, the incidence of obstetric hysterectomy is increasing worldwide due to the high rate of caesarean sections (Batbaatar, Dorjdagva, Luvsannyam, Savino & Amenta, 2016).

Hysterectomy can be approached vaginally, laparoscopically, laparoscopically with robotic assistance, or laparoscopically via an abdominal incision (Thurston et al., 2019). Three main types of hysterectomy include total hysterectomy, partial and radical. Total hysterectomy includes the removal of the uterus including the cervix is removed. In a partial hysterectomy, the upper part of the uterus is removed but the cervix is left intact and the fallopian tubes and ovaries are also not removed; this type is also called subtotal or supracervical. In a radical hysterectomy, the entire uterus, cervix, upper part of the vagina, tissue on both sides of the uterus, and lymph nodes are removed (Elgi & Viswanath, 2017; Tamrakar, 2014).

Hysterectomy is generally safe, but this does increase risk of complications in which every major surgery includes which has intense effect on a women's health (Abdominal hysterectomy & Mayo clinic, 2017). Hysterectomy complications include intraoperative complications and postoperative. deep vein thrombosis, perforation of nearby organs, excessive bleeding requiring a transfusion, death, injury to organs and tissues in the abdomen during the procedure, ureter damage or injury, incision site changes because a vaginal incision may be considered insufficient after the procedure is started and an abdominal incision may be required and blood pressure that drops dangerously low or increases dangerously high during the procedure refers to intraoperative complications (Jason et al., 2013).

Furthermore, nurses play a significant role in the care for women who are having a surgical hysterectomy, include preparing the patient and her family for discharge

(Stolldorf, Mixon & Auerbach, 2020). Prior to discharge, the patient and her family should get verbal and written instructions on nutrition, wound care, personal hygiene, activity limits, medication administration recommendations, signs and symptoms of infection to report, and follow-up appointments. (Adugbire & Aziato, 2018).

Provision of comprehensive nursing care before and after hysterectomy by a skilled nurse is the single most important way of reducing post-hysterectomy complications and saving women's lives. Provision of comprehensive pre and postoperative nursing care is also a moral and ethical issue, as the right to life and health is a social human right. Thus, all women should be guaranteed the right to comprehensive gynecological nursing care especially pre and post hysterectomy surgery (Sayin & Aksoy, 2012; Thilagavathi & Rajeswari, 2014). As a result, this study was carried out to see how an educational program affected the performance of gynecological nurses before and after hysterectomy operation.

**Significance of the study:**

Hysterectomy is a common surgical procedure in the world because of its high prevalence, predominantly performed when women are between 30 and 50 years old (Lungu et al., 2021; Desai, Sinha & Mahal, 2011). Approximately 96% of hysterectomies are performed to treat benign conditions (Gupte & Nagabhirava, 2018). The prevalence is 7-8% of rural women and 5% of urban women had already undergone hysterectomy ((Lungu et al., 2021; Desai, Sinha & Mahal, 2011).

So, the current study helps to evaluate nurses' performance regarding care of women undergoing hysterectomy in Port Said city.

**AIM OF THE STUDY**

Evaluate nurses' performance regarding care of women undergoing hysterectomy and women satisfaction in Port Said hospitals.

**Research Objectives:**

1. Assess nurses' knowledge about care of women undergoing hysterectomy in Port Said hospitals.
2. Determine nurses' practice about care of women undergoing hysterectomy for management in Port Said hospitals.
3. Identify women's satisfaction toward nurses' practice regarding care of women undergoing hysterectomy in Port Said hospitals.

4. Find out the relationship between nurses' performance regarding care of women undergoing hysterectomy and women satisfaction in Port Said hospitals.

## SUBJECTS AND METHOD

### Research design:

A descriptive research design was used to evaluate nurses' performance regarding care of women undergoing hysterectomy.

### Setting:

The present study was conducted in two hospitals affiliated to Comprehensive Health Insurance which constitute hospitals namely, Gynecological specialty hospital and El-Hayah Port Fouad.

### Subjects:

The study population comprised two groups:

Group one: nurses

50 nurses (n= 35) at Gynecological specialty hospital and (n= 15) at El-Hayah port Fouad hospital.

Group two: Women

$$\text{Sample size (n)} = \frac{Z^2}{\Delta^2} P (100 - P)$$

P = The prevalence of hysterectomy (Anwar., et al 2020)

Z<sup>2</sup> = a percentile of standard normal distribution determined by 95% confidence level = 1.96

Δ<sup>2</sup> = The width of the confidence interval = 5.

$$\text{Sample size (n)} = \frac{1.96^2}{5^2} 4.5 \times (100 - 4.5) = 65 \text{ women} + 10\% (6)$$

The calculated sample size is 65. Due to the expected non-participating rate 10% (6), the final sample size will 71 women.

### Tools for Data Collection:

The data of the study were collected by:

#### Tool 1: structured interview questionnaire

This tool includes two parts:

#### **Part 1: Personal characteristics of nurses or patients:**

This part includes questions related to personal name, hospital name, unite, age, gender, relationship status, educational attainment, years of experience as a nurse, years of experience in current position, previous training about gynecological management.

### **Part 2: Nurses' knowledge regarding care of women undergoing hysterectomy**

This questionnaire was adapted from Ibrahim (2016), it's modified by the researcher, it purposed to assess nurses' knowledge toward women undergoing hysterectomy. It includes the following, concept of hysterectomy and the causes of hysterectomy, about methods and problems of hysterectomy, Preoperative preparations for women undergoing hysterectomy, intraoperative preparations, immediate postoperative care, late postoperative care, discharge instructions and warning signs to seek medical care. The response for the knowledge items was scored 1 for a right answer and 0 for a wrong answer. The total scores of the items were added together and divided by the number of items, yielding a mean score for the item. These scores were converted to a percent score, and the means, standard deviation, and standard deviation were calculated. If the percent score was equal to or greater than 60%, the nurses' knowledge was considered satisfied, and unsatisfied knowledge was less than 60%, according to cut off points (Ibrahim 2016).

### **Tool 2: Observational checklist about nurses' practice regarding care of women undergoing hysterectomy**

This checklist will be adapted from Ibrahim (2016), in English language and modified by the researcher, it aims to evaluate nurses' performance for women undergoing hysterectomy, and It involves all procedures associated to hysterectomy (pre- and post-operative) treatment. For the practical items, a correct practice will be scored 1 and an incorrect practice will be scored 0. The total scores of the items were added together and divided by the number of items, yielding a mean score for the item. These scores were converted to a percent score, and the means, standard deviation, and standard deviation were calculated. Nurses' practice in caring for women undergoing hysterectomy was classified as satisfied if the percent score was equal to or more than 60%, and unsatisfied if the percent score was less than 60% (Ibrahim 2016).

**Tool 3: satisfaction scale regarding care of women undergoing hysterectomy**

This scale will be adopted from Ibrahim (2016), in Arabic language, it assess the degree of satisfaction for women who made hysterectomy about nursing care that will be given to the women. It consists of statements which are along continuum of rating scale. Satisfaction items are scored 2, 1, and zero for "Yes", "Sometimes", and "No" response respectively. The sum of the item scores was added together, and the total was divided by the number of items, yielding a mean score. The results were then converted to a percentage. If the percentage score is 60 percent or more, the subject is satisfied; if it is less than 60 percent, the subject is unsatisfied.

**Pilot study**

Pilot research was conducted on 10% (5) nurses in the study sample as well as patients. (7) at the study setting before starting the data collection. The goal of the pilot study was to assess the study tools' clarity, application, and feasibility, as well as to estimate the time required to complete them. It also assisted in identifying any potential obstacles or issues that could obstruct data collecting.

Certain adjustments were made as a result of the pilot study. As a result, the pilot students were not included in the study's main sample. As a result, the pilot nurses and patients were not included in the study's main sample.

**The validity**

For the current study, the Nurses' knowledge regarding care of women undergoing hysterectomy questionnaire (Tool 1, part 2) was modified and translated into Arabic language. The two chief phases of translation comprising forward and backward were done. Two bilingual specialists did the forward translation, and then the Arabic version of the Nurses' knowledge regarding care of women undergoing hysterectomy was then translated back into an English language by two other linguistic experts who were uninformed of the original version. Then, the researchers revised these translations and compared them with the original version to assure the accuracy of translation and eliminate any dissimilarity.

As well, a final Arabic version was confirmed by a panel of experts who decided that the translated tool was valid. A panel encompassed one professor and two assistant professors from Maternity, Gynecology and Obstetrics Nursing department, one professor and one assistant professor from Maternity, Gynecology and Obstetrics Nursing department, and two assistant professors from Maternity, Gynecology and

Obstetrics Nursing department, Faculty of Nursing, Port Said University. They were demanded to convey their views concerning construction, lucidity, significance, and inclusiveness of the transformed tool. Grounded on their appraisal, the required modifications were done accordingly. The stage of evidencing validity of the translated tool continued for two months.

**Reliability:**

Reliability of an Arabic version of the Nurses' knowledge regarding care of women undergoing hysterectomy questionnaire and Observational checklist about nurses' practice regarding care of women undergoing hysterectomy was proven by Cronbach's alpha coefficient. An Arabic version was proved to be reliable as Cronbach's alpha was satisfactory as  $\alpha = 0.84$  &  $\alpha = 0.85$  respectively. The period of ascertaining reliability persisted for two weeks.

Also, Observational checklist about nurses' practice regarding care of women undergoing hysterectomy (Tool II) was modified and translated into Arabic language. The two chief phases of translation comprising forward and backward were done. Two bilingual specialists did the forward translation, and then the Arabic version of the Nurses' knowledge regarding care of women undergoing hysterectomy was then translated back into an English language by two other linguistic experts who were uninformed of the original version. Then, the researchers revised these translations and compared them with the original version to assure the accuracy of translation and eliminate any dissimilarity.

As well, a final Arabic version was confirmed by a panel of experts who decided that the translated tool was valid. A panel encompassed one professor and two assistant professors from Maternity, Gynecology and Obstetrics Nursing department, one professor and one assistant professor from Maternity, Gynecology and Obstetrics Nursing department, and two assistant professors from Maternity, Gynecology and Obstetrics Nursing department, Faculty of Nursing, Port Said University. They were demanded to convey their views concerning construction, lucidity, significance, and inclusiveness of the transformed tool. Grounded on their appraisal, the required modifications were done accordingly. The stage of evidencing validity of the translated tool continued for two months.

Reliability of an Arabic version of Observational checklist about nurses' practice regarding care of women undergoing hysterectomy was proven by Cronbach's alpha coefficient. An Arabic version was proved to be reliable as Cronbach's alpha was satisfactory as  $\alpha = 0.85$ . The period of ascertaining reliability persisted for two weeks.

As well as, The Arabic version of satisfaction scale regarding care of women undergoing hysterectomy showed validity and worthy internal consistency, using Cronbach's alpha  $\alpha = 0.79$ . Validity was done by an expert panel who decided that the scale was valid (*Ibrahim (2016)*).

### **Field work**

- 35 nurses were recruited from Gynecological specialty hospital which available during the data collection and 15 nurses were recruited from El-Hayah port fouad hospital which available during the data collection and 71 women undergoing hysterectomy.
- After describing the study's purpose, each selected nurse gave their oral agreement to participate in the study.
- From mid-November 2019 until the end of August 2020, the research was carried out.
- A number of 1-2 nurses were interviewed per day from 8 am to 8 pm.
- The study tools were then explained to the nurses, who were assured that all information would be kept private and utilized exclusively for the purpose of the study.
- For the purposes of the investigation. The tool of nurses' knowledge regarding care of women undergoing hysterectomy were filled by the nurses meanwhile the questionnaire which completion within 30-45 minutes.
- Observational checklist about nurses' practice regarding care of women undergoing hysterectomy were filled by the researcher which was taking time ranged between 15-30 minutes (Initial assessment upon woman's arrival in the hospital: the day before operation, Preoperative psychological preparations, the day before operation, Preoperative physical preparations, the day before operation, Preoperative care steps for hysterectomy patient; At the morning day of preparation, Post-operative care steps for gynecological patient in the ward room ); the tool of satisfaction scale regarding care of women undergoing hysterectomy were filled by the researcher by asking the patient and that was completed within 10-15 minutes.
- The researcher then categorized, examined, and corrected the data.

**Ethical Considerations:**

The relevant committees in the faculty of nursing accepted the research proposal. The researcher described the study's purpose to the directors of hospitals in the Governorate of Port Said in order to obtain their formal approval to conduct it.

Before beginning the interview, the nurses were given verbal agreement to participate in the study after a brief explanation of the study's purpose in order to seek their participation. They were also advised about their right to refuse by the researcher. They were assured that the data gathering process would not disrupt the work's flow and that any information gathered would be kept private and used only for the study's purposes. They were also instructed that there were no right or incorrect responses, only honest expressions of their feelings and behaviors and that "privacy" was important.

**Data Analysis:**

Data was evaluated and computed once it was coded and transferred into specially created formats for data entry. Frequency, distribution, and percentage, mean and standard deviation were used to organize, categorized, and tabulate the data in tables. The statistical analysis was carried out on a computer using the statistical package of social science software (SPSS) version 19.0. The chi-square test was used to compare qualitative category variables. When the expected value in one or more cells in a 2x2 table was less than 5, no test could be applied. When the expected value in 10% or more of the cells was less than 5, no test could be applied. For the evaluation, a person correlation analysis was employed.

**RESULTS:**

**Table (1):** the results reveal that nurses' age range between 30-60 years with a mean age of  $30.46 \pm 6.95$  years, more than two-third of them (62%) reported that their age  $\leq 30$  years old. It was also observed 38% of them were married and 64% of them are worked at Gynecology specialty hospital. Looking at their level of education, it was found that 48% of nurses have a Health technical institute. 44% of nurses have experience from 5-10 years; the majority of them (86%) are attending training. Around half of nurses (50%) have 1-3 of training and more than half (52%) are attending training in their hospital.

**Table (2):** It is clear to the table that 70% of the nurses reported correct definition of hysterectomy and the majority of nurses correctly explained causes, types, routes and complications of hysterectomy ( 66%, 88%, 62%, 84%) respectively.

**Table (3):** According the table, the majority of nurses have correct knowledge regarding examinations which performed upon admitted hospital, time of refrain from eating before the operation, care giving to the patients' need when entering the hospital and nursing procedures that are performed to them before the operation (92%, 78%, 84%, 90%) respectively.

**Table (4):** According the table, the majority of nurses have correctly knowledge regarding post-operative care as time of solutions stopped and removed after the operation, the importance of caring for the perineum after the operation, the special care for the perineum, the problem of urinary disturbance ends after passage and the exercises that a woman should adhere to after a hysterectomy (72%, 96%, 88%, 74%, 70%) respectively; Meanwhile more than half of nurses (52%) have incorrect knowledge related to starting exercise.

**Table (5):** represents the majority of nurses have correct knowledge regarding sign of wound infection, time to have sexual intercourse after the operation, physiological and psychological changes that happen to a woman after a hysterectomy and health education that the nurse should give to the woman before leaving the hospital (94%, 92%, 84%, 98) respectively.

**Table (6):** finds that more than two-thirds (77.5%) of nurses are satisfied with their practice of caring for women who have had a hysterectomy. Also, regarding post-operative care, the majority of nurses (85.9%) have satisfied practice regarding care of women undergoing hysterectomy.

**Figure (1):** According the figure, the majority of the women undergoing hysterectomy had satisfaction towards Satisfaction scale regarding care of women undergoing hysterectomy the nurses' care. More satisfaction and agreement were noticed among the study group about the cleanliness of patient's unit, regularity in administration of medications and care.

**Table (7):** demonstrates a statistically significant positive link between total score of nurses' knowledge regarding care of women having hysterectomy, nurses'

practice regarding care of women undergoing hysterectomy, and women' satisfaction with care of women undergoing hysterectomy ( $p=0.039, 0.023$  respectively).

**Table (1):** Personal characteristics of studied nurses (n=50).

Personal characteristics	Studied nurses	
	No	%
<b>Age</b>		
≤30	31	62
31 : 40	8	16
41 : 50	5	10
51 : 60	6	12
<b>Mean±SD</b>	<b>30.46±6.95</b>	
<b>Marital status</b>		
Single	18	36
Married	19	38
Divorced	8	16
Widowed	5	10
<b>Hospital name</b>		
Gynecological specialty hospital	32	64
El-hayah port-fouad hospital	18	36
<b>Level of education</b>		
Nursing diploma	15	30
Health technical institute	24	48
Bachelor degree	11	22
<b>Years of experience</b>		
Less than 5 years	20	40
5 : 10	22	44
More than 10 years	8	16
<b>Experience years in the current job</b>		
Less than 5 years	26	52
5 : 10	11	22
More than 10 years	13	26
<b>Attending Previous training</b>		
Yes	43	86
No	7	14
<b>Number of training</b>		
1-3	25	50
4-5	18	36
<b>Place of training</b>		
Health insurance organization	22	44
Faculty of nursing	2	4
Their Hospital	26	52

**Table (2):** Nurses' knowledge regarding care of women undergoing hysterectomy

Items	Correct answers		In-correct answers	
	No	%	No	%
Definition of hysterectomy	35	70	15	30
Causes of hysterectomy	33	66	17	34
Types of hysterectomy	44	88	6	12
Routes of hysterectomy	31	62	19	38
Complications of hysterectomy	42	84	8	16

**Table (3):** nurses' knowledge about nurses' practice regarding care of pre-operative care hysterectomy

Items	Correct answers		In-correct answers	
	No	%	No	%
Examinations that are performed upon admitted hospital	46	92	4	8
Time to refrain from eating before the operation	39	78	11	22
Care which the patient need when entering the hospital the day before the operation	42	84	8	16
nursing procedures that are performed before the operation	45	90	5	10

**Table (4):** nurses' knowledge regarding post-operative care of women undergoing hysterectomy

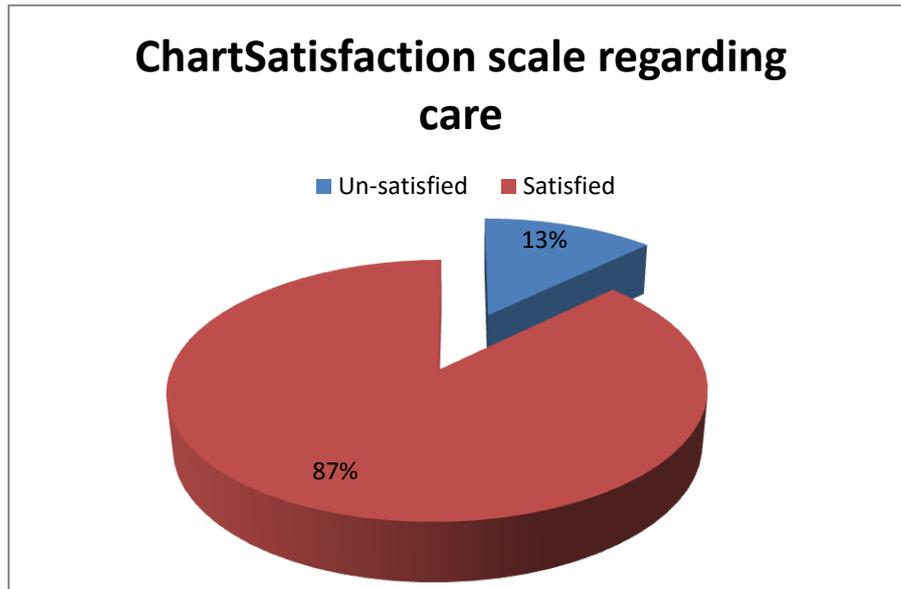
Items	Correct answers		In-correct answers	
	No	%	No	%
Services are provided for approval	31	62	19	38
The correct position in which the patient is placed after the operation	33	66	17	34
Time of solutions stopped and removed after the operation	36	72	14	28
The importance of caring for the perineum after the operation	48	96	2	4
The special care for this area (perineum)	44	88	6	12
The solution used during cleaning the perineum?	33	66	17	34
The problem of urinary disturbance ends after the passage	37	74	13	26
The exercises that a woman should adhere to after a hysterectomy	35	70	15	30
Time which the woman should start exercising at a day	24	48	26	52

**Table (5):** nurses' knowledge regarding care of women undergoing hysterectomy upon discharge from hospital

Items	Correct answers		In-correct answers	
	No	%	No	%
The warning signs that require the patient to be directed to the hospital immediately	34	68	16	32
A sign of wound infection	47	94	3	6
Time which can woman have sexual intercourse after the operation	46	92	4	8
The nurse advises the patient to overcome the problem of vaginal dryness by using	29	58	21	42
The fizzing of the face and neck and increased perspiration that occurs after a hysterectomy as a result of	25	50	25	50
The physiological and psychological changes that happen to a woman after a hysterectomy	42	84	8	16
The health education that the nurse should give to the woman before leaving the hospital	49	98	1	2

**Table (6):** Observational checklist about nurses' practice regarding care of women undergoing hysterectomy

Dimensions	Un-satisfied practice		Satisfied practice	
	No	%	No	%
<b>Preoperative care steps for hysterectomy patient; At the morning day of preparation</b>	16	22.5	5	77.5
<b>Post-operative care steps for gynecological patient in the ward room</b>	10	14.1	6	85.9



**Figure (1):** Satisfaction scale regarding care of women undergoing hysterectomy

**Table (7):** Correlation between nurses’ knowledge, practice and women’ satisfaction

Total score	Knowledge	practice	Satisfaction
Knowledge	--	r = 0.744 p = 0.039*	r = 0.832 p = 0.023*
practice	r = 0.744 p = 0.039*	--	r = 0.033 p = 0.787
Satisfaction	r = 0.832 p = 0.023*	r = 0.033 p = 0.787	--

\*Significant (P<0.05)

Spearman's test for correlation

## DISCUSSION

One of the most commonly gynecological procedures is hysterectomy performed all over the world, hysterectomy has intense effect on a women’s health as the women stand facing physical, psychological, emotional and social problems after the operation and it is the most commonly primary gynecological procedure for gynecological problems, and is used for both malignant and benign conditions such as fibroids, endometriosis, adenomyosis, endometriosis, uterine prolapse , Dysfunctional uterine bleeding and cervical dysplasia (Brummer et al., 2011).

Once a patient is admitted to the hospital, nurses are the primary caregivers, throughout hospital stay and even after discharge. Proper nursing performance can affect the patients coping pre and post hysterectomy surgery (Mahmoud, El-adham & Hashem, 2021). The present study was carried out to evaluate nurses' performance regarding care of women undergoing hysterectomy in Port Said city.

The finding of the present study denoted that high percentages of the nurses have general knowledge for women undergoing hysterectomy. The interpretation might be that the majority of studied nurses worked in gynecological specialty hospital and their years of experiences ranged from five to ten years; nurses had an experience about hysterectomy and were attending training in their hospitals. This interpretation is supported by Wagner & Bear (2009) who stated that the consequences achieving high levels of patient satisfaction with nursing care includes compliance with it healthcare systems that lead to better health outcomes.

According to the findings of this study, the majority of nurses had adequate knowledge of pre-operative hysterectomy care. The present study was carried out to explain by preoperative preparation of hysterectomy involves physical examination to determine overall health, pelvic examination, ultrasonography and laxative or enema is indicated to empty the bowels before surgery, the informed consent includes indications for surgery, expected benefits of the procedure, the expected course of problem without therapy and possible complications, time of refrain from eating before the operation, care giving to the patients' need when entering the hospital and nursing procedures that are performed to them before the operation and hair surrounding the incision area may be removed at the time of surgery.

To provide optimal intraoperative conditions, the nurse must adequately prepare the patient both physically and psychologically preoperatively. The interpretation might be that majority of studied nurses attending previous training related to gynecological practice and information. The research study recommended that hair clipping is preferable to shaving because it decreases the incidence of wound infection (Magon & Mehra, 2016). Pre-admission education helps improve patients' awareness of self-care and complication management after surgery, as according similar study findings. This can attributed to a role of preoperative care in surgical planning and its outcome (Priya, Roach & Lobo, 2017).

According to the findings of this study, the majority of nurses have correct knowledge regarding post-operative care as time of solutions stopped and removed after the operation, the importance of caring for the perineum after the operation, the special care for the premium, the problem of urinary disturbance ends after the passage after hysterectomy and the exercises that a woman should adhere to after a hysterectomy. This can be attributed to nurses' experience years in nursing and gynecological field and also attending previous training of gynecology in their hospital.

According to the finding of this study, the majority of nurses have correctly knowledge regarding time to have sexual intercourse after the operation. These results points out to the Patients are advised to avoid sexual intercourse for 6 weeks and Patient is encouraged to return to normal activities as soon as she is comfortable (Magon & Mehra, 2016).

The majority of the nurses in this study have knowledge regarding physiological that happen to the women after hysterectomy. The interpretation might due to that majority of them have more than five years of experience. In accordance with Hoffmann & Pinas, (2014) in U.S.A, described that vaginal pain was a considerable problem of their study women after hysterectomy. Meanwhile, Kayani, Pundir & Omanwa (2016) who did a study of "Quality of life after total laparoscopic hysterectomy" in Kuwait, women who had dyspareunia before hysterectomy were more likely to report improved sexuality after hysterectomy.

The majority of the nurses in this study are aware of the psychological alterations that happen to women after hysterectomy. Similarly, our findings agree with those of (Ali, Mohamed, Riad, & Elfadeel, 2018), who demonstrated that the care plan for a woman undergoing hysterectomy should reflect her emotional needs as well as the physical care required; the nurse role extended to preparing the patient and family for discharge is an ongoing process that occurs throughout the hospitalization.

Persson, Brynhildsen & Kjølhede (2011). General psychological well-being was improved after hysterectomy in the south of east Sweden within 12 months of the operation, and did not appear to be related to the serum concentration of circulating sexual hormones.

According to the findings of this study, the majority of nurses have correctly knowledge of the health education that women should receive before leaving the hospital. The majority of nurses have attended training, and about half of them have a health technical institute level of education, according to the findings. In line with this, a Tanzanian study discovered the unfavorable consequences of sedentary activity after hysterectomy, concluding that excessive sedentary behavior after hysterectomy is harmful, even in women who exercise regularly. (Ingrid et al, 2013).

Similarly, Yava et al. (2013) asserted that nurses' attitudes can have a significant impact on the patient's quality of life. On the other hand, suggested that, regardless of how much time nurses spend on pain management during each shift, their actions may not always result in beneficial outcomes. Patients' fear of the unknown can be reduced by providing them with knowledge regarding their problems (Dzomeku, Atinga, Tulukuu, & Mantey, 2013; Koç, Salam& enol, 2011; Milutinovic, Simin, Brkic & Brkic, 2012).

However, a study in Turkey found that total nurses' practice regarding patient discharge after surgical operation was unsatisfactory, and the current study has found that all of the nurses studied had unsatisfactory practice regarding patients' teaching during discharge (wound care – medications – activities – nutrition – symptoms to report – follow-up community resources). This could be due to a lack of training courses, job descriptions, motivation, interest, and nursing staff shortages, all of which contribute to work overload (Gouda, Mohammed & Ameen, 2019).

According to the findings of the current study, the majority of women undergoing hysterectomy are satisfied with the nurses' care of women undergoing hysterectomy. This has been shown in efficiency of service providers, interpersonal skills and facility characteristics were positively associated with patients' satisfaction; Patients' sociodemographic characteristics, stage of disease, and patients' perceptions of trust relationships and feelings of being included in decisions regarding their care are all patient-related factors. (Mukhtar et al., 2013). That might be because the majority of nurses present during the observation were competent with the care of women undergoing hysterectomy, knowledge about nurses' practice regarding care of preoperative care hysterectomy and knowledge regarding care of women undergoing hysterectomy upon discharge which affected in patient satisfaction.

Age, sex, marital status, education level, social status of the patient, waiting time for services, hospital staff skill, services provided by doctors and nurses, providing instructions to patients while discharged, insurance status of the patient, and other factors have all been recognised as having an effect on patient satisfaction with hospital services. (Farzianpour, byravan & amirian, 2015). Patients are more satisfied when they receive clear, detailed communication and easy-to-understand instructions from their healthcare providers, with the nurse's communication being the strongest overall satisfaction predictor. (kash & Mckahan, 2017).

This interpretation is supported by Adhikary et al (2018) in Bangladesh where clarified that more than half of Patients were satisfied with the care they received, and satisfaction levels varied by facility type and level; satisfaction levels in private facilities were found to be the highest; this study highlighted the importance of the physical environment, such as cleanliness and maintaining adequate privacy, in providing quality care. The physical atmosphere of a health center may have an impact on patient satisfaction. Previous research has shown that a convenient and comfortable facility environment leads to higher patient satisfaction.

Patients' satisfaction was also linked to healthcare providers' interpersonal communication abilities and behaviors toward patients, according to previous research. Recent patient satisfaction surveys also revealed that the importance of doctors' interpersonal communication skills outweighs their technical ability, and it was suggested that providers' interpersonal and empathetic abilities be strengthened through training and evaluation. (Batbaatar, Doridagva, Luvsannyam, Savino & Amenta, 2016).

According to the findings of the study conducted in Turkey, nurses' communication style is to treat patients with respect and be friendly to them. (Karaca & Durna, 2018). Patient education has been associated to positive clinical outcomes such as better adherence to a therapy regimen, lower anxiety, and improved symptom management (Karaca & Durna, 2018). Patients aged 56 and older, on the other hand, were less satisfied than patients of other ages.

After risk-reduction surgery, patient satisfaction is high, and overall mental anguish is reduced (Alexandre, Black, Whicker, Minkin & Ratner, 2017). The need to improve the quality of health care services has been identified through health-related information and technological advances, changes in expectations and opinions about health care, increased

individual participation in health care, and increased cost and competitiveness in the health sector, according to Freitas, Silva, Minamisava, Bezerra, and Sousa (2014) in Istanbul.

More satisfaction and agreement were noticed among the study group about the cleanliness of patient's unit, regularity in administration of medications and care. In Egypt Ali et al; (2018) study at Ain Shames university about " The Impact of a Specialized Nursing Care Protocol on Post-Hysterectomy Complications "A planned nursing care regimen was helpful in avoiding post-hysterectomy problems and achieving patient satisfaction at El Manial University Hospital," according to the paper (Gouda, Nour, Elsayed & Shaban, 2018).

Lastly, there were significant correlations between nurses' knowledge regarding care of women undergoing hysterectomy, nurses' practice regarding care of women undergoing hysterectomy and satisfaction regarding care of women undergoing hysterectomy. This was evident in dealing with Patients stated "information played a big part in their satisfaction, and they stressed that nurses' information should be clear and straightforward. As a result, it is critical for nurses to understand that providing accurate and relevant information to patients is a nursing responsibility, and that they should collaborate with other health-care professionals to do so (Karaca & Durna, 2018).

On the same line, knowledge of care in a health-care environment that increasingly prioritises patient happiness and attaches reimbursement to such ratings, the impact on patient satisfaction is very important (Brandon, Wojcik, Sophia, Mckinley, Noor Amari, David et al, 2019). The interpretation is the nurses working in gynecological specialty hospital, have health technical institution, their experience more than 5 years and attending training have experience and knowledge about hysterectomy and that affect positively to nurses performance which leads to increasing patient satisfaction. The Measuring patient satisfaction provides important information about performance (Goh, Ang, Chan, He, & Vehvilainen Julkunen, 2016; Shinde & Kapurkar, 2014).

In contrast, a study found that patients were dissatisfied with the information and instructions provided by nurses, and that nurses believed that "information giving" was the role of physicians, and that nurses were afraid to provide information because of the power hierarchy between nurses and physicians (Abdel Maqsood et al. 2012).

## CONCLUSION

In deduction, based on the present study findings and research hypothesis, the nurses had an effective role towards care women who undergoing surgical hysterectomy and can provide practical guidance on a variety of topics and take use of the chance to provide health education and promotion. According to the findings, the majority of nurses were satisfied with their general knowledge of hysterectomy for women. Also, the majority of the women undergoing hysterectomy were satisfied towards regarding nurses' care of women undergoing hysterectomy. Regarding pre-operative and post-operative care, the majority of nurses had satisfied practice regarding care of women undergoing hysterectomy. Finally, there was a statistically significant positive link between the total score of nurses' knowledge, practice, and satisfaction with nurses' care of women undergoing hysterectomy.

## RECOMMENDATIONS

**The following recommendations are made based on the results of the previous study:**

1. Developed a long-term training program to improve nurse performance and expertise in caring for women who have had their uterus removed.
2. Clinical pathways should be used in gynecologic procedures to improve patient outcomes and minimize postoperative problems Provision of systematic, continues supervision to evaluate the nursing practice for these high-risk cases to ensure the provision of quality nursing care.
3. An educational program aimed at training nurses how to improve physical and psychological recovery of post-operative patients as rapidly as feasible.

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أداء الممرضات تجاه رعاية السيدات الخاضعات لعملية استئصال الرحم و مدى رضا السيدات عن أداء  
الممرضات في مستشفيات بورسعيد

د. سهام شحاتة إبراهيم<sup>1</sup> ، د. نور الهدى محمد الشابوري<sup>2</sup> ، أمينة حمدي عبد الرؤوف أبو الغيط<sup>3</sup>

استاذ مساعد تمريض الأمومة و النسا و التوليد<sup>1</sup>، مدرس تمريض الأمومة و النسا و التوليد<sup>2</sup>، أخصائية تمريض  
مستشفى الريم

### الخلاصة

استئصال الرحم له تأثير كبير على صحة المرأة حيث تواجه المرأة مشاكل جسدية ونفسية وعاطفية واجتماعية بعد العملية ، ويمكن أن يؤثر أداء التمريض المناسب على المرضى الذين يتأقلمون قبل وبعد جراحة استئصال الرحم. الهدف: هدفت هذه الدراسة إلى تقييم أداء الممرضات تجاه رعاية السيدات الخاضعات لاستئصال الرحم و مدى رضا السيدات عن أداء التمريض في مستشفيات بورسعيد. طرق و أدوات البحث: تم استخدام الدراسة الوصفية. تكونت موضوعات الدراسة من 50 ممرضة و (71 سيدة) خاضعة لعملية استئصال الرحم. تم استخدام ثلاث أدوات لجمع البيانات اللازمة. الأداة الأولى: استمارة استبيان و سوف تتكون من جزئين (الجزء الأول): البيانات الشخصية و الخصائص العامة لدى الممرضات و المرضى، (الجزء الثاني): استبيان لقياس معلومات الممرضات عن التدخل التمريضي تجاه السيدات الخاضعات لعملية استئصال الرحم، الأداة الثانية: قائمة الملاحظات العملية لتقييم أداء التمريض قبل و بعد إجراء عملية استئصال الرحم، الأداة الثالثة: قياس مدى الرضا عند السيدات اللاتي يخضعن لعملية استئصال الرحم عن أداء التمريض. النتائج: أوضحت الدراسة وجود علاقة ارتباط موجبة ذات دلالة إحصائية بين معلومات الممرضات و أداء الممرضات و مدى الرضا لدى السيدات الخاضعات لعملية استئصال الرحم. يمكن الإستنتاج أن يتمتع الممرضات بمستوى عال من المعلومات ومستوى عال من الأداء بالإضافة إلى أن السيدات الخاضعات لعملية استئصال الرحم يتمتعون بمستوى عال من الرضا. التوصيات: برنامج تعليمي لتعليم إرشادات الممرضات لتعزيز التعافي الجسدي والنفسي للمريض بعد الجراحة ، إلى الظروف الطبيعية في أسرع وقت ممكن.

الكلمات المرشدة: أداء التمريض، الرعاية، رضا السيدات، استئصال الرحم.