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Functional activities and quality of recovery after Hysterectomy: Supportive versus routine nursing interventions

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The most common reasons for a hysterectomy are the treatment of fibroids, endometriosis, adenomyosis, pelvic organ prolapse, and malignancy. Early ambulation, mild leg and deep breathing exercises, pelvic floor exercises, circulation exercises, and core abdominal workouts are all beneficial for speedy healing and a return to regular activities after surgery. The aim of this study was to compare the effectiveness of supportive versus routine nursing interventions on functional activities and quality of recovery after hysterectomy. Method: The study used a quasi-experimental research design. The research took place at Shebin El-Kom University Hospital in the Menoufia Governorate of Egypt. A purposive sample of 150 women were chosen to take part in the study. The study used a structured interview questionnaire, a functional activity scale, and a postoperative quality of recovery scale. Results: The findings revealed that there were lower mean functional activities scores in the study group (16.56±1.3, 9.16±0.93, and 5.61±1.19, respectively) than in the control group (21.7±3.6, 16.6±1.39, and 12.93±1.65, respectively). As a result, the study group had a higher mean postoperative quality of life in every category compared to the control group: emotional state (29.4729±4.61837 and 17.5814±5.83724), physical comfort (28.7519±6.10716 and 23.4341±8.21093), psychological support (20.2868±5.45463 and 13.4961±4.84304), physical independence (11.2403±4.89703 and 9.7829±3.37954), and pain (19.7519±5.18265 and 13.5891±4.53220) respectively. Conclusion: As a result, providing post-hysterectomy women with supportive care is a proven way to speed up their recovery and improve their functional activities and the quality of recovery. Recommendation: All post-hysterectomy women in maternity hospitals should have access to non-pharmaceutical supportive care.

Keywords: supportive care after hysterectomy, functional activities, quality of recovery.

INTRODUCTION

For many women, nothing compares to the anxiety they feel before a hysterectomy (Ezzat, 2020). It is true that surgery is a form of treatment, but it also has profound effects on the patient's ability to carry out daily tasks, feel emotionally stable, and otherwise recover from their condition (Alshawish et al. 2019). Due to intravenous infusion, a patient's mobility is often limited after surgery, and the patient must ambulate with several tubes or drains (Fathy et al. 2018).

Long-term bed rest has been linked to a variety of negative outcomes, including a lowered basal metabolic rate, a loss of muscle strength, tone, and size, altered posture, constipation, heightened susceptibility to pulmonary and urinary tract infections, and circulatory problems like thrombosis and embolism (American College of Obstetricians and Gynecologists, 2017). Tonolini (2018) added other outcomes, including major health problems after surgery, longer hospital stays, and higher health care costs.

Most women who have had a hysterectomy are said to be permanently depressed, and some even show signs of a disorder combining anxiety and depression (Michael et al. 2020). The patient should be encouraged to get out of bed and begin moving around as soon as possible after surgery to reduce the risk of postoperative complications like chest pain and poor blood flow (Ali et al. 2018). After a hysterectomy, pain from the incision can affect a woman's ability to go about her daily life and her sense of well-being, as reported by a group of researchers led by Nelson et al. (2016). Some people have said that mild physical activity and moving around quickly after surgery could help with pain and scar tissue.

Nelson et al. (2016) added that it speeds up the post-operative recovery, decreases the risk of postoperative complications, prevents poor posture, enhances pelvic floor function, and fortifies abdominal muscles. Gentle leg and breathing exercises are essential right after surgery

for a speedy recovery (Adewale, 2019). Women who are sedentary for extended periods of time are more likely to experience muscle weakness, respiratory problems, and blood clots. Postoperative pulmonary complications (PPCs) are still a major cause of postoperative morbidity (Selvanathan et al. 2019). Also, they cause patients to suffer needlessly and keep them in the hospital longer.

Supportive nursing care from a trained nurse after a hysterectomy is one of the most effective ways to lessen the likelihood of post-operative complications and save the lives of women, as demonstrated by Mahmoud et al. (2021). The provision of sustaining nursing care is a moral and ethical issue that must be addressed because the right to life and health is a social human right. So, all women, especially those who have just had a hysterectomy, should have the legal right to receive supportive nursing care so they can enjoy its many benefits.

The early recovery and rapid restoration of daily activities after a hysterectomy can be aided by deep breathing exercises, pelvic floor (Kegel) exercises, circulation exercises, and core abdominal exercises (Ali et al. 2019). Nursing care after a hysterectomy typically consists of the regular observation of the patient's vital signs (blood pressure, pulse rate, and respiration rate), as well as the management of any bleeding that may occur (Adugbire and Aziato, 2018). Further, they stressed the importance of monitoring core body temperature on a consistent basis. It can help people get better quickly after a hysterectomy and get back to their normal lives quickly (El said et al. 2020).

Significance of the study

Reduced physical activity after a hysterectomy raises the risk of cardiovascular and respiratory complications. This is because pain and other immobilizing symptoms put patients in a low-activity state (Ezzat, 2020). Depending on the diagnostic criteria employed, postoperative pulmonary complications have a prevalence anywhere from 9% to 40%. (Michael et al. 2020). The incidence of postoperative pulmonary complications and the improvement of cardiopulmonary and physical function following hysterectomy have both been the targets of various nursing interventions (Toppozada et al. 2021). They also noted that starting an exercise programme right away is the single most effective thing nurses can do to help patients recover quickly and with fewer complications after surgery.

Benefits after surgery are agreed upon, and they include a reduction in venous stasis, stimulation of circulation, prevention of deep venous thrombosis and pulmonary embolism, increases in muscle tone, reductions in postoperative pain and narcotic consumption, a quicker recovery of intestine function, improved fatigue after surgery, a shorter hospital stay, and enhanced gastrointestinal, genitourinary, and pulmonary function (Mahmoud et al. 2021). So, the aim of this study was to compare how well supportive nursing care and standard nursing care help women fully recover from hysterectomy, both in terms of their ability to do everyday tasks and the overall quality of their recoveries.

MATERIALS AND METHODS

Method

Research Design:

A type of research called "quasi-experimental" was used to accomplish the aim of this study.
Research setting:
The research was conducted at Shebin El-Kom University Hospital in the Egyptian province of Menoufia. Most people agree that the above hospital is the best in both eastern and western Menoufia.

Sample:
Based on the sample size calculation with a 95% confidence interval, a purposive sample of 150 women who had undergone hysterectomy for obstetric or gynecological reasons were recruited for the study. Subjects were randomly split in half for the study (75 women in the study group and 75 in the control group).

The inclusion criteria were
1. Women have undergone abdominal hysterectomies, both elective and emergency, without complications.

The exclusion criteria were
1. Women who had operative complications.
2. Women who are critically ill.

The study group was made up of 75 women, all of whom received routine and supportive standard post-hysterectomy nursing care in a hospital setting, including breathing exercises to boost respiratory functions, blood circulation, intestinal activity, ankle flexion, extension, and circumflexion, leg bracing, knee flexion, and extension, and other exercises to boost body posture, strengthen pelvic organs, and prevent musculoskeletal pain. The control group was made up of 75 women who only got routine hospital nursing care (medical and nursing care after surgery).

Instruments of the study:
Three instruments were used in the study:
Instrument (I): After reviewing the relevant literature (Mettler and Alkatout, 2018; Modesitt et al. 2016; Kalogera and Dowdy, 2016), the researchers developed a structured interview questionnaire and conducted validity and reliability tests. There were three sections to it:
Section 1: Socio-demographic data: there was information about the women's ages, their husbands' and their own levels of education, their jobs, and their annual incomes.
Section 2: Medical history that included issues like high

blood pressure, thyroid problems, diabetes, back pain, disc issues, urinary incontinence, and more.

Section 3: Gynecological history included questions about the causes of hysterectomy, such as bleeding, prolapse, cancer, endometriosis, pelvic inflammatory disease, hyperplasia, and adenomyosis.

Instrument (II): Functional Activity Scale:

It was adopted from Nisha and Clement (2017). It has been validated and checked for consistency and validity after being translated into Arabic. It consisted of items focused on helping people regain the ability to do things like ambulate (sit, stand, and walk). The information was gathered by watching the patients get abdominal hysterectomies every 12 hours after they were able to walk.

Scoring and analysis:

Functional activity scores were used to evaluate the level of restoration of functional activity. Over the course of three days, the women were watched and asked to rate how hard different tasks were for them on a scale from 0 to 10, with 0 meaning they had no trouble and 10 meaning they could not do the task at all.

Instrument (III): Postoperative quality of recovery scale:

it was adopted from Hussein & Taha (2017). It was a 40-item questionnaire meant to measure the quality of recovery. Each item was on a five-point Likert scale, with 1 being never and 5 being always for positive items and the opposite for negative ones. The items were then put into groups based on various aspects (dimensions) of recovery: emotional state (n9), physical comfort (n12), psychological support (n7), physical independence (n5), and pain (n7).

Scoring system

The total score of the QoR scale was 200, and the total quality of recovery score was calculated as follows: Low quality of recovery: < 60% of total quality of recovery scores (< 120 scores). Moderate quality of recovery: 60–75% of total quality of recovery scores (< 120–150 scores). High quality of recovery: **>**75% of total quality of recovery scores (> 150 scores).

Validity and reliability of the study instruments

Five specialists at Maternal and Newborn Health Nursing and Obstetrics Medicine reviewed the instruments to determine their content validity. The panel's recommendations for improving sentence structure and updating content were implemented.

Using a test-retest procedure, we determined that the functional activity scale was reliable, with a correlated coefficient of 0.83. The QoR-40 has also been subjected to test-retest reliability. Total QoR scale Cronbach's alpha was 0.92, and individual dimensions' alphas were as follows: emotional state (0.86), physical comfort (0.83), psychological support (0.80), physical independence (0.80), and pain (0.77).

Administrative and ethical considerations:

Permission was sought and granted by Menoufia University's Faculty of Nursing's Ethics and Hearing Committee. The study was approved by the dean of the nursing school at Menoufia University and the hospital's director. The management of the institution officially authorized the conduct of the research. Participants were informed of the study's aim and their rights to anonymity and confidentiality. They were briefed on their right to quit participating in the study at any time. Participants in the current study provided informed consent.

Pilot study:

Ten percent of the total study sample participated in a pilot study to evaluate the study's instruments for readability, practicality, and feasibility. Since the study tools did not need to be changed too much, women pilots were eventually added to the research.

Fieldwork

From September 1, 2021, through April 30, 2022, the following stages of the study were carried out:

Stage 1: Preparation

Researchers at this point began to look over the most up-to-date literature available (Adewale, 2019). In addition, theoretical knowledge was gathered by reviewing journals, magazines, textbooks, and the internet, and by familiarizing oneself with the many facets of the study topics. The researchers made sure that the data collection tools were correct by translating them from English to Arabic and back again.

Stage II: Assessment (for both groups)

Sociodemographic information was gathered through interviews on the day of the hysterectomy. The instrument was filled out while the researchers were conducting the interviews. The whole interview lasted no more than a quarter of an hour. After getting participants' permission, researchers took down their phone numbers so they could contact them later.

Stage III: Implementation (for both the control and study groups):

- The researchers visited the study setting three days per week to conduct the main study intervention.
- The main thing that was done in this study was done by researchers when they went to the study site three times a week.

Routine nursing care given to patients in the hospital following a hysterectomy: (for both the control and study groups):

The gynecological ward was where female patients were taken. Constant checks were made on the patients' vital signs. No oral feedings were to be administered to patients prior to the onset of bowel movements. Within the first 24 hours following surgery, the discomfort had subsided. Intravenous (IV) pain relievers and non-steroidal anti-inflammatory drugs were given per the doctor's orders. The nurses also gave the patients any additional pain relievers or anti-inflammatory drugs they may have needed. If patients did not develop hypotension after surgery, they were given the green light to walk around right away. At first, the researcher had the women walk around their rooms for ten to fifteen minutes.

Nursing's supportive postoperative intervention (for the study group only)

In addition to standard hospital nursing care, it was administered to the study group. It included measures to enhance respiratory function that are not typically administered to women after hysterectomies. Hussein and Taha (2018) say that thoracic expansion exercises cause the lungs to expand, which leads to a full exchange of gases, the removal of waste, and an increase in the tone of abdominal muscles, blood flow, secretions, and relaxation. Every hour that the women were awake, five sets of thoracic expansion and active lower-limb exercises were implemented. After that, three times a day, ten repetitions of the exercises were performed. The women were shown how to huff, which is easier and works better than coughing.

For blood circulation:

According to Gamal et al. (2019), "women were taught bending, stretching, and circumflexion of feet at the ankles, leg bracing, knee bending, and straightening exercises to improve circulation, reduce edema, prevent possible postoperative circulatory problems such as deep vein thrombosis, hasten recovery from the anesthetics, and prepare the subject for the effort required in first getting out of bed."

For intestinal function restoration:

The researchers at a university hospital spent two weeks learning connective tissue manipulation (CTM) from physiotherapists in the physiotherapy unit to help restore intestinal function in women who had undergone hysterectomy. Each session of connective tissue manipulation lasted around 5 minutes and was performed while the client sat comfortably upright. According to Erdogan et al. CTM involves applying traction to the sacrum, iliac crests, sacroiliac joints, lumbar paravertebral region, and subcostal region by using the third fingertip to make localized strokes (2014). According to Gamal et al. (2019), this was incorporated into the intervention due to its effects on pain and visceral dysfunction, such as reduced intestinal motility. The women in the study group were taught about body mechanics to help them become more aware of their posture, fix it, and lower their risk of getting pain in their muscles and joints after giving birth.

Stage IV: Evaluation:

The post-operative quality of recovery of both the study and control groups was assessed 24 hours after surgery. Researchers used the functional activities scale to measure patients' ability to perform daily tasks 12 hours after hysterectomy surgery.

Statistical Analysis:

The researchers used IBM's SPSS (Statistical Package for the Social Sciences) version 22 for the statistical analysis. The data was cleaned using frequency and descriptive statistics to rule out the possibility of any anomalies or missing information. Frequencies and percentages were used to describe the data for categorical variables, while means and standard deviations were used to describe continuous variables, and tests of independence and the chi-squared statistic were used to compare groups. All statistical tests were performed at the 0.001 and 0.05 levels of significance.

RESULTS

Table 1 shows the demographic and social characteristics of the sample population. No statistically significant differences in any of the measured characteristics were found between the two groups. About one-half of the people in the study and control groups (60% and 57.3%, respectively) were middle-aged (40–50 years old), with the mean ages for the two groups being 39.57± 5.6 and 38.84± 5.2 years old, respectively. In terms of education, one-half of the women in both the study and control groups had completed secondary school (57.3% and 46.7%, respectively). About 58.7% of husbands in the study group and 74.7% of husbands in the control group had completed at least secondary school. In addition, this table's breakdown by occupation reveals that more than two-thirds of the women in the study group (70.7%) were stay-at-home moms, compared to just over two-thirds of the women in the control group (66.7%).

Table 1: The demographic and social profile of the studied women (N=150)

Items	Study group (N=75)		Control group (N=75)		X2	P Value
	N0.	%	N0.	%		

Age (years):						
30- < 40 years	10	13.3%	10	13.3%	3.23	P>0.05
40- < 50 years	45	60%	43	57.3%		
> 50 years	20	26.7%	22	29.4%		
X± SD	39.57± 5.6		38.84± 5.2		t=0.69	
level of education:						
Illiterate & 1ry education	10	13.3%	15	20%	0.271	P>0.05
2ry education	43	57.3%	35	46.7%		
University	22	29.4%	25	33.3%		
Occupation:						
Housewives	53	70.7%	50	66.7%	0.176	P>0.05
Workers	22	29.3%	25	33.3%		
Husband education:						
Illiterate & 1ry education	15	20.0%	14	18.6%	3.5	P>0.05
2ry education	44	58.7%	56	74.7%		
University	16	21.3%	5	6.7%		
Husband occupation:						
Farmers	21	28.0%	21	28.0%	0.32	P>0.05
Workers	54	72.0%	54	72.0%		
Family income:						
Enough	17	22.7%	20	26.7%	0.32	P>0.05
Not enough	58	77.3%	55	73.3%		

Table 2: Medical history of the studied women (N=150)

Items	Study group (N=75)		Control group (N=75)		X2	P Value
	N0.	%	N0.	%		
Hypertension						
Yes	52	69.3 %	43	57.3 %	**2.3**	**P>0.05**
No	23	30.7 %	32	42.7 %		
Thyroid dysfunction						
Yes	12	16.0 %	13	17.3 %	5.3	P>0.05
No	63	84.0 %	62	82.7 %		
Diabetes mellitus						
Yes	52	69.3 %	43	57.3 %	2.3	P>0.05
No	23	30.7 %	32	42.7 %		
Back pain						
Yes	11	14.7 %	15	20.0 %	0.28	P>0.05
No	64	85.3 %	60	80.0 %		
Urinary incontinence						
Yes	45	60.0 %	42	56.0 %	2.8	P>0.05
No	30	40.0 %	33	44.0 %		
Anemia						
Yes	18	24.0 %	17	22.7 %	0.32	P>0.05
No	57	76.0 %	58	77.3 %		

The women's medical records are listed in Table 2. Statistical analysis showed that there were no significant differences in the medical histories of the two sets of women (p > 0.05). Diabetes mellitus and high blood pressure are the two conditions that are most common in both groups.

Table 3: Gynecological history of the studied women (N=150)

Items	Study group (N=75)		Control group (N=75)		X2	P Value
	N0.	%	N0.	%		

Bleeding						
Yes	50	66.7 %	43	57.3 %	2.21	P>0.05
No	25	33.3 %	32	42.7 %		
Prolapse						
Yes	20	26.7 %	22	29.3 %	1.65	P>0.05
No	55	73.3 %	53	70.7 %		
Cancer						
Yes	25	33.3 %	27	36.0 %	2.25	P>0.05
No	50	66.7 %	48	64.0 %		
Endometriosis						
Yes	5	6. 7 %	43	10.0 %	1.87	P>0.05
No	70	93.3 %	32	90.0 %		
pelvic inflammatory disease						
Yes	10	13.3 %	12	16.0 %	0.176	P>0.05
No	65	86.7 %	63	84.0 %		
Hyperplasia						
Yes	15	20.0 %	16	21.3 %	0.251	P>0.05
No	60	80.0 %	59	78.7 %		

The gynecological records of the women in the study were displayed in Table 3. It found no statistically significant differences in the gynecological histories of the two sets of women ($p > 0.05$). The incidence of bleeding is higher than average in both categories. Bleeding was found to occur in 66.7% of the study group compared to 57.3% of the control group.

Table 4: Distribution of length of hospital stays of the studied women (N=150)

Items	Study Group (N=75)		Control Group (N=75)		X2	P Value
	N0.	%	N0.	%		
length of hospital stays (in hours)						
48-<72 hours (about 3 days)	50	66.7 %	21	26.7 %	32.88	P<0.001**
>72 hours	25	33.3 %	55	73.3 %		

In Table 4, the length of hospital stays for the study and control groups differed significantly ($p<0.001$**), where the average length of hospitalization was longer for the comparison group. While 72.7% of the comparison group spent more than three days in the hospital, 66.7% of the study group did not.

Table (5) shows there were highly statistically significant differences between the study and control groups regarding the presence of pre-syncopal symptoms during the first ambulation, the return of intestinal function, and difficulties in daily activities. When comparing the two groups, 56% of the women in the control group and 36% of the women in the study group experienced pre-syncopal symptoms during the initial phase of walking. Also, there were lower mean scores in the study group regarding the return of intestinal function, breaking gas, and score of daily activities. In relation to the time from transfer to the obstetrics and gynecology department room to ambulation after surgery (hours, minutes), it was lower in the study group (3.28 ± 0.4) compared to (4.57± 0.54) in the control group. In addition, there were lower mean scores of daily activities on the same day of the operation and the 1st and 2nd day after the operation in the study group (16.56±1.3, 9.16±0.93, and 5.61±1.19, respectively) than in the control group (21.7±3.6, 16.6±1.39, and 12.93±1.65, respectively).

Table 6 indicates the average postoperative recovery quality scores of the women in the study. It found that the women in the study varied in terms of their emotional well-being, physical comfort, psychological support, physical independence, and pain levels after surgery. All postoperative quality of life dimensions showed statistically significant improvements in the study group compared to the control group (P-value <0.001).

Based on the findings shown in tables 4 and 5, the first study hypothesis is accepted.

Table 5: Comparison of post-operative functional activity scores between the study and control groups (N=150)

Items	Study group Mean ±SD	Control group Mean ±SD	Independent t-test	P-Value

The time a patient is taken to the obstetrics and gynecology department's room until they are able to walk again after surgery, in hours	3.28 ± 0.4	4.57± 0.54	-15.7	0.000HS
Presence of pre-syncopal symptoms at the time of first walking (n / %)	27 (36%)	42 (56%)	6.01	0.01 Sig.
Return of intestinal function	3.49±4.84	2.28±5.45	10.57	<0.001**
The rate at which the gas breaks down (hours/min)	1.21 ± 0.41	2.3 ± 0.77	-10.8	0.000 HS
Defecation	1.94 ± 0.54	2.54 ±0.50	-7.03	0.000 HS
The mean score of daily activities in the surgery day	6.56±1.3	2.7±3.6	-11.56	0.000 HS
The mean score of daily activities on the first day after surgery	6.16±0.93	9.6±1.39	-39.03	0.000HS
The mean score of daily activities on the second day after surgery	2.61±1.19	5.93±1.65	-31.05	0.000HS

HS: means highly statistically significant

Table 6: Dimensions of Postoperative Quality of Recovery of the Sample Population (N=150)

Items	Score	Study group	Control group	Independent t test	P-Value
		Mean ±SD	Mean ±SD		
Emotional state (9 items)	45	29.4729±4.61837	17.5814±5.83724	18.14	<0.001**
Physical comforts (12 items)	60	28.7519±6.10716	23.4341±8.21093	5.90	<0.001**
Psychological support (7 items)	35	20.2868±5.45463	13.4961±4.84304	10.57	<0.001**
Physical independence (5 items)	25	11.2403±4.89703	9.7829±3.37954	2.78	<0.05*
Pain	35	19.7519±5.18265	13.5891±4.53220	10.16	<0.001**
Global QoR-40	200	109.5039±18.49203	77.8837±24.28079	11.76	<0.001**

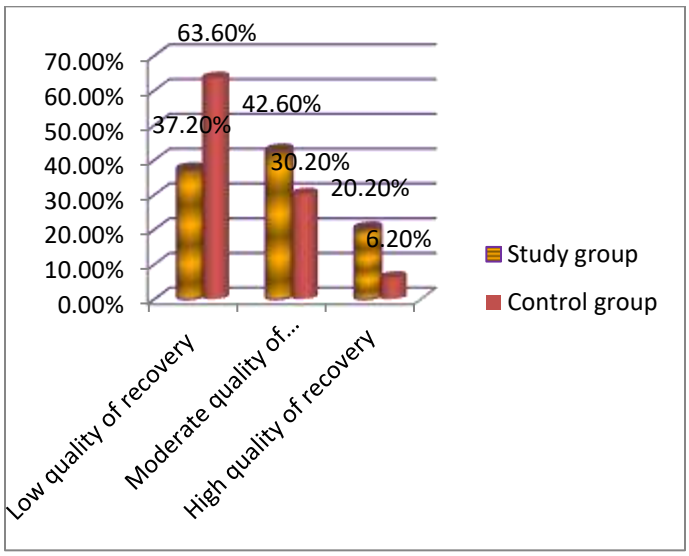

Figure 1: Percentage distribution of the postoperative quality of recovery score of the studied women

The quality of recovery scores of the women in the study and control groups are shown in Figure 1. Comparing the study group's postoperative quality of recovery score of 37.2% with that of the control group's 63.6%, the study group fared much better. While 42.6% of the study group reported an excellent quality of life after surgery, only 30.2% of the control group did, and only 6.2% of the control group reported a particularly excellent quality of life after surgery.

Based on the findings shown in tables 4, 6, and figure 1, the second study hypothesis is accepted.

DISCUSSION

Although hysterectomy is a safe procedure with an excellent success rate, it carries some postoperative risks of complications that affect the quality of recovery and functional activities. Nurses had an effective role in the prevention of complications and improvement of the quality of recovery and functional activities. The results of this study are discussed as follows: 1. A socio-demographic feature of the women who were researched. 2. previous medical and gynecological histories of the women who were analyzed. 3. the average length of time that the women in the study were admitted to the hospital for treatment. 4. Functional activities and difficulties in daily activities among the studied women after surgery. 5. the postoperative quality of recovery score among the studied women.

Demographics of the women who participated in the study

There was no statistically significant difference between the study and control groups in terms of the women's ages, levels of education, occupations, husbands' education levels or occupations, or household income. This reduced the potential for bias introduced by

group differences in the outcome measures.

The results of a study by Zhang et al. (2018) examining "the effect of psychological intervention on quality of life, negative emotions, and psychological rehabilitation in post-hysterectomy women" corroborate these observations. They demonstrated that the socio-demographic characteristics of the study group and the control group were not different in a statistically significant way.

More than half of participants in both the study and control groups were aged 40–50, according to the current investigation. This jibed with the findings of Zhang et al. (2018), who noted that the majority of the study's participants were between the ages of 41 and 49. According to Ezzat's (2020) study, "An audit of hysterectomies at Aswan University Hospital in upper Egypt," the average age of study participants was in the 40s and 50s.

Medical and gynecological histories of the studied women

There were no statistically significant differences in gynecological history between the study and control groups in the current study. Both groups most commonly experienced bleeding that was either excessive or irregular; over two-thirds of the study group experienced bleeding, compared to over half of the control group.

This finding was consistent with the findings of Ibrahim and Mohammed (2020), who found no statistically significant differences between the study and control groups on the causes of hysterectomy and found that the most common cause of hysterectomy was heavy or irregular bleeding. According to Ezzat (2020), abnormal uterine bleeding is the leading cause of hysterectomy.

Hospitalization duration in the study and control groups

There was a statistically significant difference between the length of hospital stays experienced by the study and control groups. Patients in the control group stayed in the hospital longer than those in the study group. When it came to length of hospital stay, those in the research group had a better experience than those in the control group.

Short hospital stays are indicative of early recovery, which is viewed positively by researchers as an indicator of the quality of recovery in the study group. This result also reflected the fact that the supportive intervention was more effective than standard nursing care in facilitating recovery. This conclusion is supported by the research of Shashi and Rakesh (2017), who found that early postoperative ambulation and physical exercises reduce the risk of joint stiffness and contractures. They also came to the conclusion that early walking and physical exercises after surgery help shorten hospital stays and make patients more mobile before they leave.

Women's postoperative quality of recovery rating

The women in this study reported significant gains in several areas of postoperative quality of recovery, including mental health, physical well-being, social support, mobility, and lack of pain. The people who wrote the study think that the progress is because the women did better with supportive nursing care than with standard care.

This result coincided with that of the study "Deep Breathing Exercise and Its Outcome among Patients with Abdominal Surgery" by Shashi and Rakesh, 2017. It was reported that the people in the study group recovered from surgery better than those in the control group. Nadu's (2018) study on the "effect of early ambulation on abdominal hysterectomy" supported this finding by showing that pre-operative respiratory and lower extremity exercises helped subjects avoid the effects of anesthetics, prepared them for the effort of ambulation, increased blood flow, and improved the quality of their recovery.

Functional activities among the studied women after the operation

Regarding the functional activities, the current study showed that the study group experienced an early return of intestinal function, rapid breaking gas, and a higher daily activity score. This is seen as being because of supportive nursing intervention.

Nadu (2018) investigated the "effect of early ambulation on abdominal hysterectomy," which corroborated the finding. They reported that the experimental group walked 40 meters after only 6 hours after abdominal hysterectomy, while the control group walked the same distance after 13 or 14 hours of surgery, as is standard practice. Except for the time spent having a catheter, all variables of recovery after surgery showed statistically significant differences between groups.

The same line of thinking can be seen in the work of Paul et al. (2019), who found that early ambulation in the postoperative period is the key to getting rapid and maximum muscle function, leading to restoration of women's health. In addition, regular ambulation aids in reducing most complications by facilitating good circulation, promoting gastric motility, enhancing respiration, lowering the risk of thrombophlebitis, avoiding orthostatic hypotension, boosting physical strength, and so on. By starting an extensive ambulation programme now, future complications may be avoided.

Furthermore, El Sayed et al. (2020) stated that post-hysterectomy women need supportive postoperative surgical care to prevent complications and optimise their health; furthermore, routine post-operative nursing care after hysterectomy includes monitoring bleeding and vital signs (blood pressure, pulse, and respirations), which positively impact functional activities. Patient education, early ambulation, gentle leg and deep breathing exercises, pelvic floor exercises (Kegels), circulation exercises, and core abdominal exercises are all examples of post-

operative interventions that can aid in early recovery and rapid restoration of daily activities after hysterectomy, as noted by Adugbire and Aziato (2018). So, it was decided that, in addition to standard nursing care, supportive nursing interventions would help women who had abdominal hysterectomies get better after surgery.

Finally, the results of the present study showed that the supportive nursing intervention was effective, with the study group demonstrating less difficulty in performing daily activities on the operative day, the day after hysterectomy, and the day after that. The results of this study supported the hypotheses and showed that the nursing intervention helped the study group more than the control group.

CONCLUSION

Findings from this study support the research hypotheses. It can be said that supportive care after a hysterectomy is an effective way to speed up recovery because it helps women feel better about themselves and gets them to do their usual functional tasks on their own by the end of the first day after surgery. It means that it has a positive effect on functional activities and the quality of recovery. Women who got supportive care after a hysterectomy had an easier time getting back to the level of functioning they had before the surgery than those who got standard hospital nursing care. Also, the quality of recovery was better for women who got supportive care after a hysterectomy than for those who got regular hospital nursing care.

Recommendations

The following are some suggestions based on the results of this study:

(1) As part of care after a hysterectomy, women can benefit from getting up and moving around early and doing physical exercises.

(2) In maternity hospitals, women who have had a hysterectomy should be able to get support that does not involve drugs.

(3) Future researches about

- Replication of the present study under different circumstances (sampling, setting, measurement, duration of management) is recommended to confirm the results of this study.
- Supportive care for various gynecological and reproductive surgery conditions, including fistula repair, pelvic organ displacement, and hysterectomy, will be investigated.
- Nursing programmes that are serious about preparing their students for careers in this field must include comprehensive instruction on providing emotional and practical support to patients experiencing difficulties after hysterectomy

CONFLICT OF INTEREST

The authors declared that present study was performed in absence of any conflict of interest.

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