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Ministry of Higher Education  
and Scientific Research  
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College of Nursing**



# **Evaluation of Post-Operative Nursing Care and Discharge Instructions for Women Undergoing Uterine Fibroid Surgery in Babylon Governorate**

**A Dissertation**

**Submitted to the Council of College of Nursing/ University of  
Babylon in Partial Fulfillment of the Requirements for the  
Degree of Doctorate of Philosophy in Nursing**

**By**

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بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

﴿ وَنُنزِّلُ مِنَ الْقُرْآنِ مَا هُوَ شِفَاءٌ وَرَحْمَةٌ لِّلْمُؤْمِنِينَ

وَلَا يَزِيدُ الظَّالِمِينَ إِلَّا خَسَارًا ﴾

صَدَقَ اللَّهُ الْعَلِيِّ الْعَظِيمِ

سورة الإسراء الآية (٨٢)

# الاهداء

❖ إلى الغائب الحاضر في قلبي.... لا اعرف كيف اخاطبك بلغة الدموع ام بلغة الفراق ام بلغة الغائب... لان روحك مازالت تحمل انيني واشتياقي اليك تأتيني كطيف بأحلامي مبتسما وكأنك تجمع شتاتي وشتات حزني وتذهب بعيدا....رحمك الله يا اخي ونور عيني.

❖ إلى من كلفه الله بالهبة والوقار .. إلى من علمني العطاء بدون انتظار إلى من أحمل أسمه بكل افتخار .. أرجو من الله أن يمد في عمرك لتري ثماراً قد حان قطافها بعد طول انتظار وستبقى كلماتك نجوم أهتدي بها اليوم وفي الغد وإلى الأبد.....والدي العزيز.

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## Committee Certification

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## Abstract

Uterine fibroids growths in the uterus and often appear during the childbearing years. Uterine fibroids range in size from the size of a seed which cannot be seen by the human eye, to huge lumps that can distort the uterus. Surgical intervention deems one therapeutic measure can be adopted in deal with this condition, this study aim to evaluate the knowledge of nurses about discharge instructions and their practices in regard postoperative nursing care for patient underwent uterine fibroid surgery.

Descriptive cross-sectional design started from (21st September 2020 to 31 March 2022), and conducted at Babylon province. Non probability purposive sample consist of (117) female nurses working in maternal surgical wards at hospital which selected to conducted this study. A questionnaire of the study consists of three parts, the first part about demographic characteristics, while the second part involved the nurses' knowledge about discharge instructions and last part about the practices of nurses in postoperative nursing care .

The results of this study displayed that the highest percentage of age among nurses with age group less than 30 years old and more of them with secondary nursing school. The nurses with poor knowledge about discharge instructions at mean of score (45.17), also these nurse with poor practices regarding postoperative nursing care at mean of score (56.72). There is a significant correlation between the knowledge of nurses about discharge instructions and their practices in postoperative nursing care depended on the correlation and liner regression test.

The study concluded that the majority of the nurses who participated in the study were not participate in any training program on how to provide post-operative nursing care and discharge instructions for patients who had

a surgical intervention to remove uterine fibroids. As well as, a vast majority of nurses who are working in women's surgery wards and participated in the study had low knowledge level about the discharge instructions and don't have a good practice in nursing care at postoperative phase.

The study recommended the health institutions should work to providing the necessary of discharge instructions for the patient that are appropriate for health condition and increasing the knowledge of nurses who are working in women's surgical wards about the discharge instructions to be given for patients undergoing uterine fibroid surgery. Preparing the training programs and scientific workshops that help in increasing the clinical practices and skills of nurses to deal with the patient after the surgical operation to remove fibroids from the uterus and provide better nursing care .

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**List of Abbreviations**

Items	Meaning
ACS	American Cancer Society
ANOVA	Analysis of variance
AST	Assist reproductive technique
AUB	Abnormal uterine bleeding
B.C	Before Christ
BMI	Body mass index
CDC	Centers for Disease Control
CNP	Clinical Nursing Pathway
COCP	combined oral contraceptive pill
ECM	Extracellular matrix
ESGE	European Society for Gynecological Endoscopy
F	Frequency
FIGO	Federation International of Gynecology and Obstetrics
GnRH	Gonadotropin-releasing hormone agonistic
GPs	General practitioners
HMB	Heavy menstrual bleeding
HRQOL	Health related quality of life
HS	Highly significant
ICSI	Intra-cytoplasmic sperm injection
IM	Intramural
IUGR	Intra uterine growth restriction
IVF	In vitro fertilization
LMS	Uterine leiomyosarcoma
LNG-IUS	levonorgestrel intrauterine system
MRgFUS	Magnetic resonance-guided focused ultrasound
MRI	Magnetic Resonance Imaging
MS	Mean of Scores
NS	Non-Significant
PMB	Post-menopausal bleeding

PROM	Premature rupture of membranes
QOL	Quality of life
S	Significant
SD	Standard Deviation
SIS	Saline infusion sonohysterography
SM	Sub-mucous
SPRM	Selective progesterone receptor modulator
SPSS	Statistical Package of Social Sciences
SS	Sub-serosal
TAUSS	Transabdominal ultrasound scan
TCRF	Trans-cervical fibroid excision
TVUSS	Transvaginal ultrasound scan
U.S	United States
UAE	Uterine artery embolization
UF	Uterine Fibroids
UFE	Uterine fibroid embolization
UK	United Kingdom
UL	Uterine leiomyoma
US	Ultrasonography
USA	United States America
WHO	World Health Organization
$\alpha$	Cronbach's Alpha

# *Chapter One*

## *Introduction*

## **Chapter One**

### **Introduction**

#### **1.1. Introduction**

The uterus is part of the female reproductive system. The female reproductive system consists of an internal and an external organ that includes (the vagina, uterus, ovaries, and fallopian tubes). These organs are located in the pelvic cavity, between the urinary bladder and the rectum. The uterine wall is composed of three layers of tissue which includes the outer layer (peritoneum), the middle layer (myometrium) and the inner layer (endometrium) (Buck, 2013).

Uterine fibroids are the most common benign uterine tumors occurring in women of reproductive age, they affect between 20% and 25% of all women and 40% of menstruating women and can lead to severe troubles in health of women and majority of the uterine fibroids are a symptomatic (James & Ahn, 2010).

Uterine fibroids (also called myomas or leiomyoma's) because the tumor consists of uterine smooth tissue as well as fibroids tissue, the term fibroid does not adequately capture the name of the lesion growths that develop from the muscle tissue of the uterus (Leppert et al., 2013).

Fibroids of the uterus present in a variety of sizes, from little myomas to giant mass, and can grow in different locations and uterine different layers. Fibroids may be appear in any period between the begin of menarche and reach to menopause, although they are most frequent in female aged (37 to 49) years old (Siskind, 2015).

Uterine leiomyoma (UL) is a type of uterine tumor that can differ in size as a little millimeters to large growths of 20 cm in diameter or more. The

woman may have a single fibroid or a large number of them. Some are as small as a pea, while others can grow to be as huge as a melon. UL are not included with an elevated the danger of uterine cancer (Sparic et al., 2016).

There are many types of uterine fibroids, their classification depend on the size, place and shape the fibroid. The may be found through the uterus, on the external surface or through its wall structure, or may be attached to the organ via a stemming. The types are subserosal (projecting outside the uterus), intramural (within the myometrium), and submucosal (projecting into the uterine cavity). The size, number, and location of the tumors affect the symptoms and treatment options (Munro et al., 2013).

The majority of women with uterine fibroids are asymptomatic, consequently get less clinical attention and fibroid tumors often remain undiagnosed . Symptomatic women typically complain about abnormal uterine bleeding, specifically in terms of heavy and prolonged bleeding and women with myomas were more likely to report a “gushing”-type of bleeding and high pad/tampon use than women without myomas. Additionally, women with uterine fibroids may suffer more often from dyspareunia and non-cyclic pelvic pain (Downes et al., 2010) .

Symptomatic women with fibroids may require medical or surgical interference because its cause excessive bleeding during menstrual cycle , pelvic bone pain , and other clinical feature that impact a female quality of live . Anemia is one of the common and life-threatening complications of women with uterine fibroids due to severe vaginal bleeding, which is one of the most important symptoms of this disease. Therefore, most affected women do not realize the seriousness of the problem (Angelos et al., 2015).

Fibroid in the uterus is a common trouble in women at fertile period leading to various bleeding and pain, that cause a negative effect on the different domain in life of women's. The etiology is largely unknown, but they are estrogen-and progesterone-dependent tumors, very rare before reach to stage of menarche and frequently regress in size later the menopause, the factors that cause fibroid to grow in the uterus are not known but research and clinical experience point to these factors includes hormones, genetic change, other growth factors, substance that help the body maintain tissue, such as insulin-like and growth factor may affect fibroid growth ( Mc Cance et al., 2014).

Fibroids are a major source of healthcare burden for both women and society as a whole. Fibroids have a negative impact on overall quality of life as well as specific domains such as job productivity, sexuality, self-image, relationships, and social, emotional, and physical well-being. UF have a significant economic impact on the women who are affected, as well as the health-care systems and cultures in which they live. Symptoms can result in significant time lost from work or a loss of career objectives. UF-related symptoms had a substantial impact on the health-related quality of life (HRQOL) of women with fibroids . As the frequency and severity of symptoms increased, so did the impact (Borah et al., 2014).

Uterine fibroids are the most common reason for hysterectomy in the United States, accounting for approximately half of all hysterectomies. Which avoids fibroid from recurrence but also eliminates the reproductive capacity. Surgical therapy consists of a hysterectomy or a myomectomy, based on the sizing, quantity, and extent of fibroids as well as the client's desires to conceive (Donnez & Dolmans, 2016).

Hysterectomy is most often performed for benign conditions such as irregular uterine bleeding with or without uterine fibroids, and the operation is done in order to improve the patient's Quality of life (QOL). Hysterectomy is most often indicated when medical treatment or less invasive methods have failed (Lewin et al., 2013).

Fibroids can cause menstrual problems (menorrhagia) occurs in 30% in women. Intermenstrual loss may occur if the fibroid is submucosal type . Fibroids are common in the premenopausal woman and may be incidental or menstrual problems may also be the result of hormonal irregularities or malignancy . Also fibroids can cause dysmenorrhea, they rarely cause pain, unless torsion, red degeneration and rarely sarcomata's change occur. Other symptoms include large fibroids pressing on the bladder can cause frequency and occasionally urinary retention, those pressing on the ureters can cause hydronephrosis, other pressure effects may also be felt. Fertility can be impaired if the tubal canal are blocked or submucous fibroids prevent implantation occur (Lockwood, 2011).

Most pregnant women with uterine fibroids conditions do not suffer from any complications during pregnancy, but some statistics have reported that 10 to 30% of pregnant women have experienced symptoms such as abdominal pain or slight vaginal bleeding. In most cases, the fetus is not affected, but there is scientific evidence linking fibroids to an increased chance of miscarriage in pregnancy or premature labor. Uterine fibrosis may increase the chance of a wrong position of the fetus during childbirth, which may impede the natural birth if the natural passage for the exit of the fetus is blocked, especially if its place is in the cervix. Fibrosis during pregnancy as a result of the increase in the proportion of female hormones in the blood, which may crowd the fetus in the place of its growth and sometimes cause its miscarriage. But also, without a known reason, the size of these tumors

may shrink during pregnancy in a small percentage of women due to bleeding that does not usually affect the fetus unless it occurs or increases by a large amount (Kroon et al., 2011).

Regarding the effect of uterine fibroids on the infertility, some studies have shown that there is no explicit relationship between a woman's with fibroids and her chance of conceiving. But in some other cases, fibroids have a profound effect on the ability to reproduce or protect the fetus in the event of pregnancy, which can prevent the sperm from fertilizing the egg, and can also affect the continuation of the pregnancy and lead to the death of the fetus (Cakmak & Taylor, 2011).

Fibroids can lead to infertility by several things such as changing in the shape of the cervix, which can effect on the number of sperms that have able to enter to the uterus, fibroids can block the fallopian tubes and making implantation process of a fertilized egg more difficult and fibroids may lead to change the shape of the uterus and reduce the number of places in which the fetus can grow safely or reduce the area of the uterus, thus the growth of the fetus cannot be completed. Some UF weaken the lining of the uterus and decrease the blood supply to the fetus, in which case a miscarriage occurs (Ekine et al., 2015).

The effect of uterine fibroids on the assist reproductive technique (AST) of fertility in vitro fertilization (IVF) and intra-cytoplasmic sperm injection (ICSI) depended on multiple factor include the place and sizing of these fibroids. If the fibroid is inside the uterus or in the uterine wall and causes pressure on the uterine cavity, it is preferable to remove it because this may hinder the implantation process, but otherwise it does not often affect the implantation and the attachment of the embryos to the uterus. But if the size of the fibroid is large in the uterine wall and lead a lowering in blood going

to uterus and uterine lining, which causes continuous contractions in the uterus and consequently prevents the attachment of the fetus, and in this case it is preferable to remove it. The final decision is up to the treating physician due to the difficulty of removing fibroids, as some of them may end with hysterectomy (Sunkara et al., 2010).

Uterine fibroids can be diagnosed by ultrasound is the gold standard approach for diagnosing these types of tumors, which has a sensitivity of (90 to 99 percent) except in the case of small and subserosal fibroids. It is also possible to utilize MRI to diagnose UF, but it is not as common. It is also well accepted that hysteroscopy is the most accurate procedure for diagnosing submucosal fibroid Size, location, age, degree of symptoms as well as desire to preserve fertility are all variables in determining how to treat UF. Surgical removal of UFs is widely accepted as the primary method of achieving this goal (Alhashim & Ibrahim, 2020).

The majority of fibroids treatments are asymptomatic and do not require treatment . However (20%-50%) of cases are clinically symptomatic, resulting in abnormal uterine bleeding (AUB), iron deficiency anemia, mass effects, and/or reproductive difficulties, and may necessitate therapy. Women with uterine leiomyoma require tailored treatment depending on symptoms, age, the needs and desires of the women to conceive, the present of drug and the therapist's experience. Medical intervention, surgical, or a both option as a combination can be used to treat symptomatic uterine fibroids (Deng et al., 2012).

The nurse's pre- and post-operative nursing care is critical in dealing with patients who are having uterine fibroids surgery. Pre-operative patient preparation, which includes both physical and psychological components, is critical for providing optimal intra-operative conditions and laying the

groundwork for a smooth post-operative recovery. A well-planned post-operative care plan reduces morbidity, shortens hospital stays, and improves patient satisfaction (Torb et al., 2013).

The most important instructions for discharge, a woman with uterine fibrosis needs an effective plan to provide information and education about the operation after discharge in the recovery period by the nursing staff, because some patients do not follow a healthy program after the operation, which includes periodic follow-ups and comprehensive examinations to primary health care centers and care specialists . Clinical management procedures and standardized methods can be used to guarantee that patients receive care in a predictable and timely way and that they are discharged after an appropriate stay. A consistent teaching plan will ensure that all patients receive the same instructions and information in the post-operative period, improving their self-care knowledge, understanding of what to expect in the post-recovery period, and maybe reducing stress (Vorhies et al ., 2012) .

The role of nurses is one of the most effective roles in the post-op period for patients in general, so the post-op period is a limited opportunity for nurses. Nurses play different roles in the post- operating recovery , provide post-operative care, education, discharge instructions in medical surgical units, so the nurses after patients are discharged from the surgical operation, it is responsible for ensuring the patient's comfort, by organizing the visits to the patient's family and giving medicines on time to ensure recovery and avoid complications such as infection (Zakaria & Levy, 2012 ) .

The woman needs accurate information on the etiology of the disorder, the symptoms, and treatment options. The must be encouraged to report

symptoms and keep appointments for follow-up examination and evaluation. The woman needs realistic reassurance if her condition is benign and may require counseling and effective emotional support if a malignancy is likely. If the management plan includes surgery, she may need the nurse's support in obtaining a second opinion and making the decision. The nurse can also provide information on available community resources, including support groups, reassurance and good quality care (Segars et al., 2014).

## **1.2. Importance of Study**

Uterine fibroids is a type of common gynecological conditions, which is a benign tumors that primarily affects women of childbearing age. Menstrual abnormalities (e.g., heavy, irregular, and prolonged uterine bleeding), iron deficiency anemia, bulk symptoms (e.g., pelvic pressure/pain, obstructive symptoms), fertility issues, and compression pain of other organs can all cause significant morbidity, which can have bad later on daily habits and job if not treated promptly. This pathology is widespread, and its prevalence ranges from (4.5 - 68.6%) . The cumulative incidence in premenopausal women is around (51%) among those whose complaint leads to an ultrasound screening . Uterine fibroids are a cause of maternal mortality and morbidity with direct implications on women's quality of life (Zimmermann et al., 2012).

Many women with symptomatic fibroids live without seeking treatment for their problem. Limited understanding of fibroids and normal menstruation appears to have led to a mistaken perception of what is typical in terms of uterine bleeding in some people, leading in a lack of treatment seeking behavior. Others are aware that their symptoms are abnormal, but they choose to ignore them. To improve women's knowledge of fibroids and

symptoms and promote treatment alternatives, patient-centered and community-based education is needed (Vilos et al., 2014).

Currently, uterine fibroids are the most common reason for hysterectomy all over the world. After caesarian section, they are the second most common procedure for women, accounting for 30% of all hysterectomies. Hysterectomy is indicated with elevated the percent of morbidity, mortality, and monetary impact to the institution (Boyd et al., 2010).

The uterus is associated with femininity, sexuality, fertility, and maternity, and its removal results in the emergence of new issues connected to the woman's social function and the way she is introduced into society . The removal of the uterus implies that most women will be unable to conceive again, which is difficult for most women, especially if the operation was done when they were young . A hysterectomy will also cease menstruation, which may make a woman feel more at ease, but it will not alleviate the feeling of losing something large and vital from her body. All of these things have an effect on a woman's mental health, making her worried and tense all of the time, thus it must be handled medically by seeing a psychiatrist (Zakaria and Levy, 2012) .

Nurses have an important role in assisting patients before, during, and after surgery. Body image, lack of preparation, and a lack of financial and social support can all be barriers to a successful recovery. Nurses should intervene responsibly and act as educators to ensure that patients are aware of the entire process in order to alleviate doubts, minimize anxiety, and address critical issues (Hampton , 2014).

Discharge instruction's that is effective in addressing the needs of women regarding fibroids surgery is critical need of patient acceptance, and

it is strong sign which a positive relationship between the giving of data and patient engagement in post-operative period (Aghakhani et al, .2012).

Nurses are in a unique position to manage this type of training in terms of providing knowledge and care for these illnesses. Women should be aware of the various treatment options available for myomas, as well as how to manage their symptoms . The woman should be informed about myomas, their symptoms, prognosis, possible treatments, and the outcomes of each therapy. Myomectomy is the procedure used if a woman wants to maintain her uterus for fertility or simple organ preservation, particularly in women who are premenopausal or who are just starting treatment for the condition and want to be supported while she goes through it (Siskin , 2015) .

Effective discharge instructions are critical in reducing patient exposure to problems following uterine fibroid surgery and avoiding re-hospitalization. Nurses now accountable more than another time for teaching their patients and also assist them for discharge. So, it is deem increasingly vital for the nursing team to complete the patient education required in relation to their present health condition in order to achieve a high quality of life (Ontario Health Coalition, 2011).

The important of this study came from the idea of observing the health problems of women which were increasing and had not been studied or shed light on it in order to choose the study topic based on previous studies and literature in the field of nursing that were conducted in the governorates of Iraq. It was noted that the evaluation of nursing care provided by nurses to patients who underwent uterine fibroid surgery and identification of nurses' knowledge regarding providing discharge instructions to patients was not addressed or studied, so this topic was chosen as the title of this study. Therefore, the title of the study was designed for this purpose and study

doing in Babylon governorate, and the objectives that were studied formulated.

Globally, uterine fibroid is the most common pelvic tumor in women of reproductive age, and at least half of those affected are asymptomatic. The global prevalence rate is 21.4 % in the 30-60-year-old age group, with African-American and older women having the largest prevalence range of 3-20 % . The frequency of uterine fibroid is presented differently among women of different age group. Fibroids develop in women between the ages of (30-50) years. Approximately 25% of Indian women in their reproductive years have noticeable fibroids. Fibroids impact (20-25 %) of middle and later reproductive women, according to World Health Organization research in 2010, and up to 235 million women, or 6.6 % of the global female population, are projected to be affected (Swain et al ., 2019).

The incidence of uterine fibroids is particularly high in African American women in the USA, the estimated overall incidence of uterine fibroids by age 35 is nearly 40% in Caucasian women and approaches 70% by age 50; however, in African American women, these estimates are approximately 60 and 80%, respectively. In the USA, uterine fibroids are the leading indication for hysterectomy, and hysterectomy has been associated with a patient satisfaction rate of over 90% (Pavone et al.,2018).

The prevalence rate of fibroids in rural South Indian women was 37.65%, in Bombay 24%, Peshwar (Pakistan) 78% and Nigeria 29.3%. There is huge disparity in the socio-demographic profile for uterine fibroids with respect to geographic and racial profile. Prevalence was 37.65% in rural setup, 24% in urban Bombay, 78% in Peshawar and 29.3% in Nigeria (Ibrar et al., 2010).

In the Saudi Arabia, according to a study conducted at King Abdul-Aziz University Hospital, (1111) women were taken as a sample for a study, the results showed that 286 of them suffer from uterine fibrosis in different age groups, the highest percentage was among women in reproductive age, while the age group 26-35 years (21.6%) and 36-45 years (33.9%). While the location of fibroid were most common location is anterior by percentage of (41.9%) and the positions were posterior in (25.4%), fundal in (10.6%), and multiple positions in (22%) of presented cases. The sizes of the uterine fibroid ranged from less than 0.6 cm to >4.5cm, with the most common sizes of fibroid above 4.5 cm (Abbas et al., 2016).

### **1.3. Statement of the Problem**

Evaluation of the Post-Operative Nursing Care and Discharge Instructions for Patients Undergoing Uterine Fibroids Surgery at Babylon Province .

### **1.4. Objectives of the Study**

**This study aimed to:**

- 1- Identify the demographical characteristics of the nurses
- 2- To assess the knowledge of nurses regarding discharge instructions for patient with uterine fibroid surgery
- 3- To evaluate the post –operative nursing care for patients undergoing uterine fibroids surgery
- 4- Find out the relationship between nurses knowledge regarding discharge instructions and their demographical characteristics.
- 5- Find out the relationship between the nurses practices and their demographical characteristics.

6- Find out the relationship between the nurses knowledge about discharge instruction's and their practice in post-operative care .

## **1.5. Definition of Terms**

### **A- Post-operative nursing care**

#### **Theoretical Definition**

Postoperative care is the immediate care the patient receives after perform a surgical procedure by nursing personnel. The type of postoperative nursing care depends on the type of surgery the patient has, as well health history, it lasts for the duration of patient hospital stay and may continue after discharged (Liddle, 2013).

#### **Operational Definition**

Postoperative care is a set of nursing interventions given after surgery for patient with uterine fibroid until the patient is discharged from the hospital or surgical center, in some cases, continuing on an ambulatory basis. Postoperative care is aimed at meeting the patient's physical and psychological needs directly after surgery.

### **B- Discharge Instructions**

#### **Theoretical Definition**

Discharge instructions communicate important medical information to help patients manage their own care when they leave the hospital after receiving health care about certain health problem (Albrecht et al., 2014).

#### **Operational Definition**

A well-structured and formal planned health information provided to women undergoing uterine fibroid surgery during discharge period as a part of optimal care.

## **C- Patients**

### **Theoretical Definition**

An individual who is suffer from health problem and need to receive professional health services by health care providers in health institutions in order to maintenance, improvement or protection of health or lessening of illness, disability or pain (Miller and Brown , 2013).

### **Operational Definition**

Woman with uterine fibroid who needs to admitted for the hospital and treated by surgical procedure to improve health status and avoid any complications which may deteriorated health condition.

## **D-Uterine Fibroid**

### **Theoretical Definition**

Fibroids also known as uterine leiomyoma are abnormal growths that develop in a woman's uterus lead to severe abdominal pain and heavy periods. It is often without signs or symptoms and the growths are typically benign or noncancerous (Kashani et al., 2016).

### **Operational Definition**

Uterine fibroids is a common medical condition that require (therapeutic, surgical) intervention and good quality nursing care and discharge instructions.

# *Chapter Two*

## *Review of Literature*

## **Chapter Two**

### **Review of Literature**

#### **2.1. Overview about the anatomy of uterus**

Two ovaries, two oviducts (uterine tubes), the uterus, the vagina, and the external genitalia make up the female reproductive system. Its primary functions are to create female gametes (oocytes) and to maintain a fertilized oocyte throughout its entire development, including embryonic and fetal stages, until birth. The system also creates sexual hormones, which regulate reproductive organs and influence other body organs . At menarche, when the first menses occurs, the reproductive system experiences cyclic changes in structure and functional activity. Neurohumoral processes are in charge of these changes. Menopause is a transitional period in which cyclic changes become less regular and eventually cease and the reproductive system undergoes a sluggish evolution in the postmenopausal period (Moore & Dalley, 2018) .

The uterus is a thick-walled, pear-shaped, hollow muscular organ. The embryo and fetus develop in the uterus, its muscular walls adapting to the growth of the fetus and then providing the power for its expulsion during childbirth. The non-gravid (non-pregnant) uterus usually lies in the lesser pelvis, with its body lying on the urinary bladder and its cervix between the urinary bladder and the rectum . The adult uterus is usually anteverted (tipped anterosuperiorly relative to the axis of the vagina) and anteflexed (flexed or bent anteriorly relative to the cervix) so that its mass lies over the bladder. The position of the uterus changes with the degree of fullness of the bladder and rectum. Although its size varies considerably, the uterus is approximately 7.5 cm long, 5 cm wide, and 2 cm thick and weighs approximately 90 g. The uterus is divisible into two main parts the body and cervix (Ellis and Mahadevan, 2013) .

The uterus is placed anterior to the rectal and posterior to the bladder in the lower pelvic cavity. It is around the size of an olive when you are a child. The size of a girl's uterus begins to grow around the age of eight. A mature uterus is roughly (5 to 7) cm long, (5) cm broad, and (2.5) cm deep in its widest upper section. It weighs around 60 g when it is not pregnant status. The uterus never returns to its pre-pregnancy dimensions, remaining roughly 9 cm long, 6 cm wide, 3 cm thick, and 80 g in weight after a pregnancy (Hwang et al., 2012).

The uterus is divided into three sections: the body or corpus, the isthmus, and the cervix. The top component of the uterus is the body, which makes up the majority of the organ. The cavity's lining is continuous with the fallopian tubes, which enter at the cavity's top aspects (the cornua). The body of the uterus is the part of the structure that expands during pregnancy to accommodate the growing fetus. The fundus is the area of the uterus between the places of attachment of the fallopian tubes. The fundus can also be palpated abdominally to estimate the amount of uterine growth that occurs during pregnancy, to quantify the force of uterine contractions during labor, and to detect whether the uterus is reverting to its pre-pregnancy form following childbirth (Perven et al., 2012).

**Histology of the Uterus** the wall of the uterus is relatively thick and is composed of three layers depending on the part of the uterus, The uterine wall consists of three separate coats or layers of tissue: an inner one of mucous membrane (the endometrium), a middle one of muscle fibers (the myometrium), and an outer one of connective tissue (the perimetrium) (Stables & Rankin, 2010).

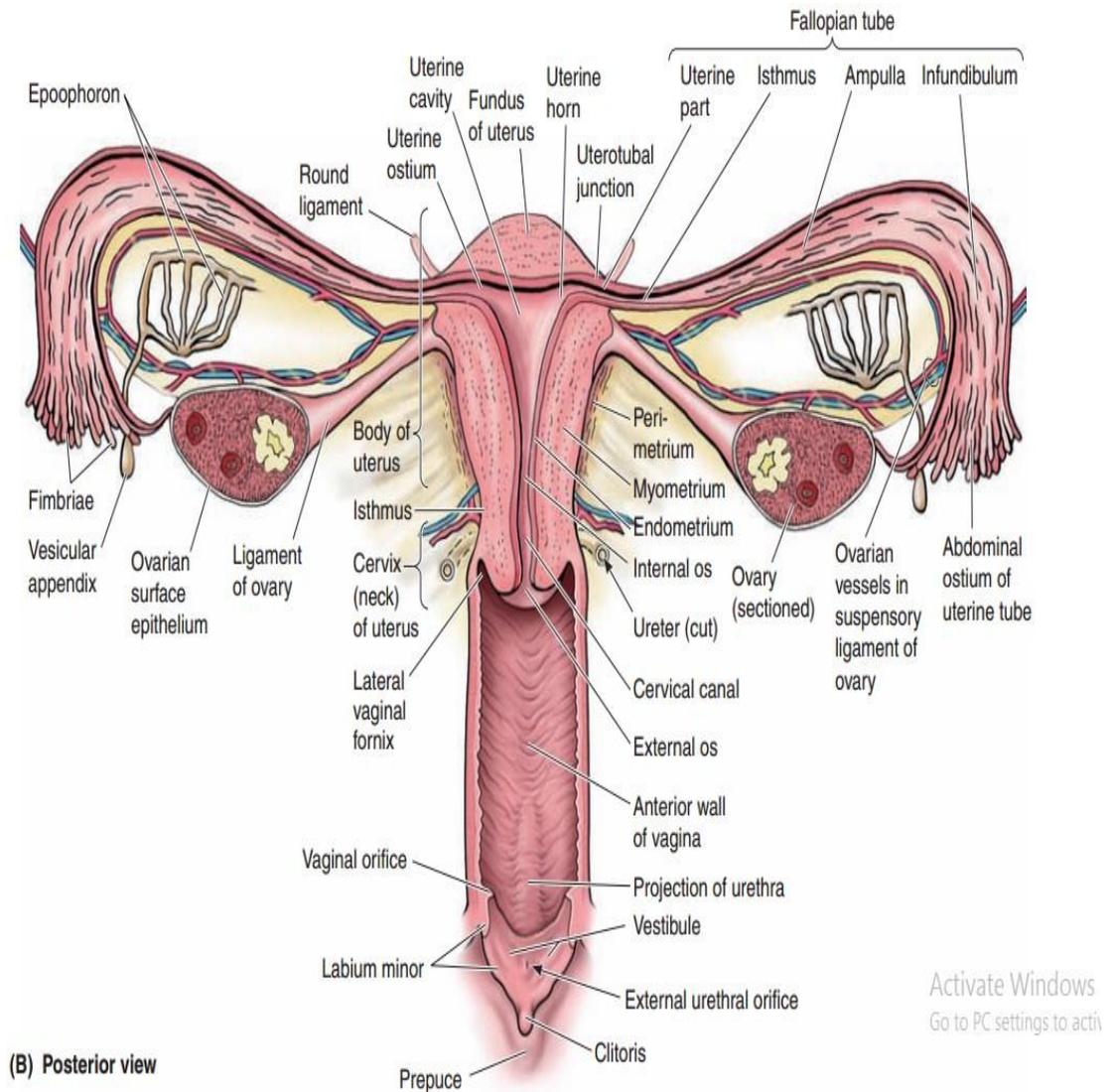


Figure (2.1) The internal female reproductive organs (Baggish & Karram , 2015) .

Menstrual function is dependent on the endometrial layer of the uterus . It's made up of two layers of cells. The basal layer, which is closest to the uterine wall, remains constant and unaffected by hormones. The inner glandular layer, on the other hand, is heavily effected by both estrogen and progesterone. Under the influence of estrogen and progesterone, it thickens

and becomes more receptive each month, to the point where it can support a pregnancy. The mucous membrane lining the cervix is known as the endocervix, and it is lost as the monthly flow if pregnancy does not occur. Hormones also alter the endocervix, which is connected to the endometrium. Mucus is secreted by cervical lining cells to provide a lubricated surface for spermatozoa to easily pass through the cervix; the efficacy of this lubrication varies depending on hormone stimulation (Heffner and Schust, 2010).

The uterus myometrium (muscle layer) is made up of three interwoven layers of smooth muscle fibers arranged in longitudinal, transverse, and oblique directions. The organ benefits from this network's tremendous strength. The myometrium plays a vital role in avoiding menstrual blood regurgitation into the tubes by restricting the tubal junctions . During pregnancy, it also keeps the internal cervical os closed to prevent a premature birth (Rankin, 2017) .

The myometrium (uterine musculature) is made up of three smooth muscle layers that are difficult to separate microscopically (from the inside to the outside). The vascular layer is quite robust and well-perfused, looping around the uterus like a net, and primarily participates in the closure of the tubes and the separation of the endometrium throughout the menstrual cycle. It's important during childbirth, and the supravascular layer is a thin film of crossing muscle fibers that helps to keep the uterus stable (Shynlova et al ., 2010) .

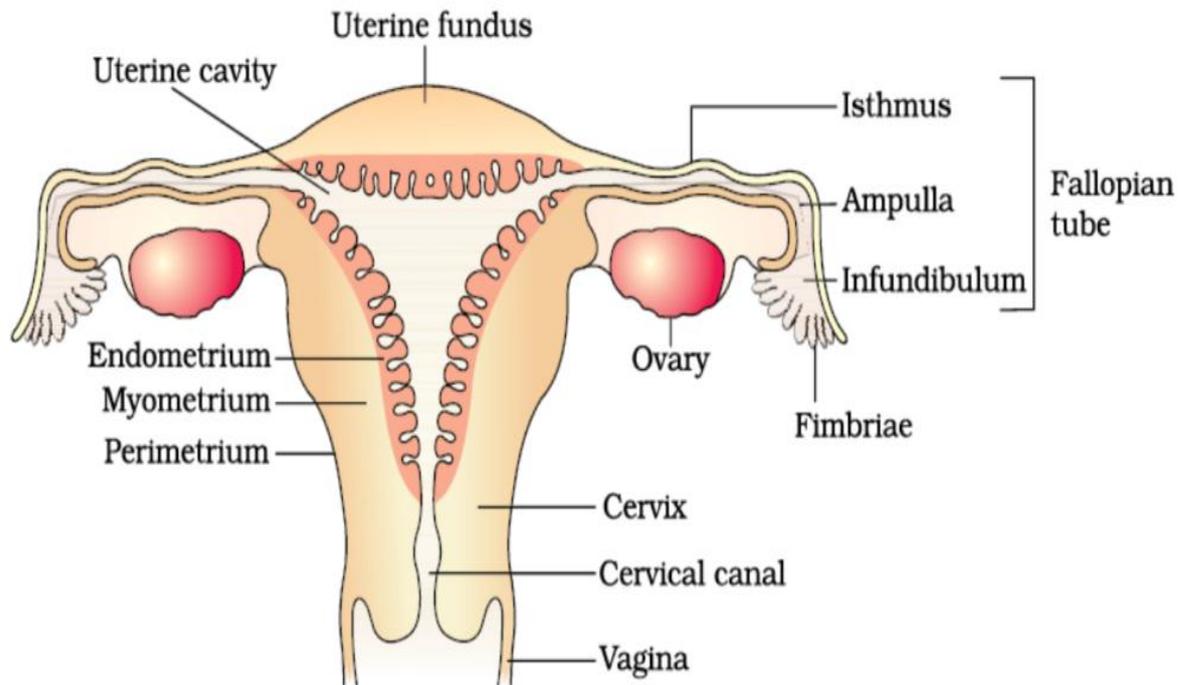


Figure (2.2) Layers of Uterine Cavity (Treuting et al ., 2011)

Ligaments of the Uterus is a lax double fold of peritoneum lying lateral to uterus, and it plays little part in uterine support. Its medial edge is attached to the side wall of the uterus, the lateral edge is attached to the side wall of the pelvis. The round ligament passes through the inguinal canal and is attached at its distal extremity to the fibrofatty tissue of the labium majus of the vulva, it consists largely of visceral muscle, and it acts to hold the uterus forwards in anteflexion and anteversion. extending from the cervix and vaginal fornix laterally to the side wall of the pelvis. Other ligaments called the lateral and uterosacral ligaments formed by pelvic fascia. The lateral ligament also known as the lateral cervical extend from the cervix and vaginal fornix laterally to the side wall of the pelvis (Birge et al ., 2015) .

## 2.2. Uterine Tumors (Benign & Malignant)

### 2.2.1 Benign Uterine Tumors

For many women and their gynecologists, benign uterine conditions are a major source of concern. Uterine fibroids are the most prevalent condition in this category, however adenomyosis and uterine polyps also play a role. Fibroids and endometrial polyps are relatively prevalent in women, and even if they are asymptomatic, they can cause significant morbidity. The most common benign growths of the uterine include cervical, endocervical, and endometrial polyps; uterine fibroids (leiomyoma) . Most endometrial polyps are solitary, and they rarely occur in women younger than 20 years of age . The incidence of these polyps rises steadily with increasing age, peaks in the fifth decade of life, and gradually declines after menopause. They are present in up to 25% of women being seen for abnormal bleeding (Mavrellos et al ., 2010).

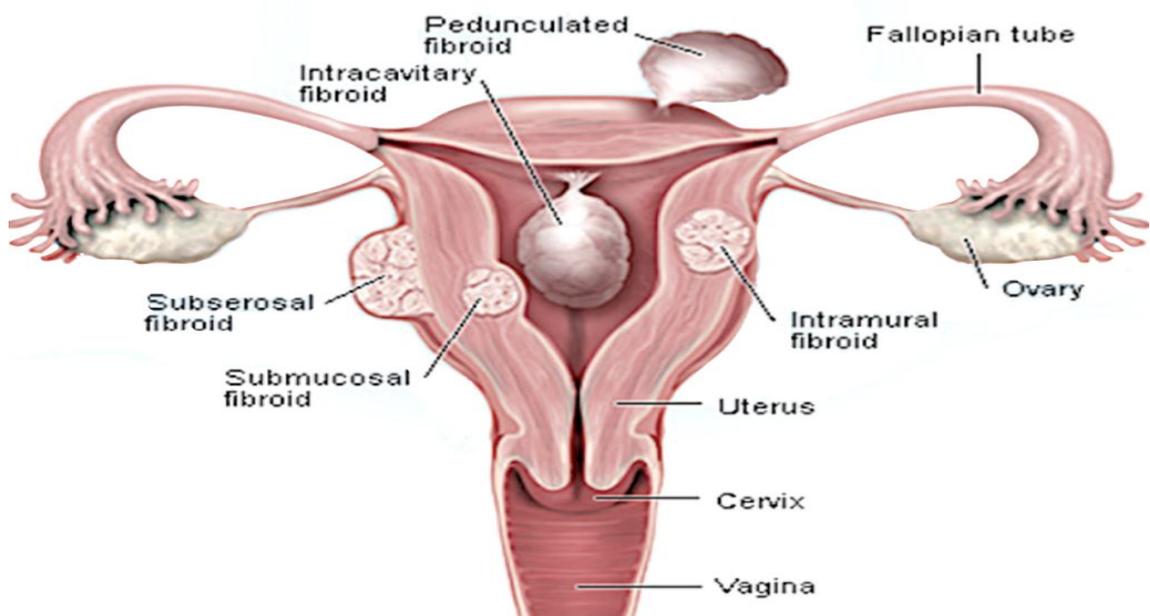


Figure (2.3) Benign Uterine Tumors (Khan et al ., 2014)

Adenomyosis occurs when the endometrium and the underlying myometrium are not separated adequately. Adenomyosis places the glands that is present in indoor stratum of uterus and profound stroma through the area of myometrium. It is only possible to diagnose adenomyosis a histological examination of a hysterectomy specimen, where it is found in 40% of normal female uteri. An endometrial ectopic to the uterus responds to alteration in circle of hormones that produce hemorrhage within the muscle stratum, resulting in secondary dysmenorrhea (pain during menses), uterine hypertrophy, and HMB (heavy menstrual bleeding) (Nguyen, 2011).

Uterine fibroid is the most prevalent benign tumor of the reproductive age population. It causes significant morbidity and is the single most common indication for hysterectomy, representing a major personal and public health concern worldwide. Fibroids constitutes a major public health cost to the community in terms of outpatient attendances and hospital costs for surgery of this disease. This tumor is also a significant cause of pelvic pain, menorrhagia, abnormal uterine bleeding, infertility and pregnancy complications. Fibroids (leiomyoma) are widespread, estrogen-dependent, benign tumors of the myometrium that affect around 40% of women over the age of 30 years. Fibroids diminish when a woman reaches menopause. In 1 per 350 fibroids case, malignant transformation to leiomyosarcomas occurs, which is frequently connected with prompt outgrowth of fibroid and AUB in the period of post menopause (Garcia & Isaacson, 2011).

### **2.2.2 Malignant Tumors of uterine**

Tumors that develop from the uterine corpus are referred to as uterine cancer (body of the uterus). Endometrial tumors, which arise from the uterine cavity's lining (endometrium), are by far the most prevalent. Sarcomas (tumors of the myometrium) are uncommon malignant outgrowth in

endometrial region is the most frequent gynecological trouble in female at UK, with a 95 per 100,000 age-related incidence. Endometrial cancer has a one-in-46 chance of occurring during one's lifetime. Although malignancies can be discovered at any time during a female lifetime, the intermediate age of diagnosis is 62 years . Endometrial cancer affects about a quarter of women before they reach menopause (MacKintosh & Crosbie, 2013) .

Sarcomas of the Uterus, which account for just 5% of all uterine malignancies, are rare tumors with a high mortality rate. Lymphoid sarcomas, leiomyosarcomas and epithelial sarcomas are the three types of cancer that exist. Leiomyosarcomas and carcinosarcomas are the two most common types of sarcomas in the body. Leiomyosarcomas are tumors of the myometrium that are extremely uncommon. In 0.75 percent of instances, they are linked to the conversion of fibroids from benign state to malignant and emerge with a prompt outgrowing of mass in pelvic and lead to pain. It is risky to diagnose preoperatively, but MRI can aid via finding necrosis inside the fibroid, which may signal malignant change. The uterus is large and supple when held in the palm of your hand. However, if the mitotic count is high, adjuvant treatment may be considered in addition to surgery. It is typical for vascular migration of cancer to organs like the lungs and brains to occur (American Cancer Society [ACS] , 2011) .

Mixture of malignancy carcinoma and sarcoma are both present in Müllerian tumors, another form of tumor. A history of pelvic irradiation may be a factor in many situations. Usually, there are previous event of PMB, and the cervix is popeyed and the uterus is expanded softly. The initial procedure is surgery, which is after the radiotherapy postoperative. The five year rate is seventy three if the tumor is contained within the uterus, but just 25% if it has going external the limit of the uterine (Morice et al ., 2015) .

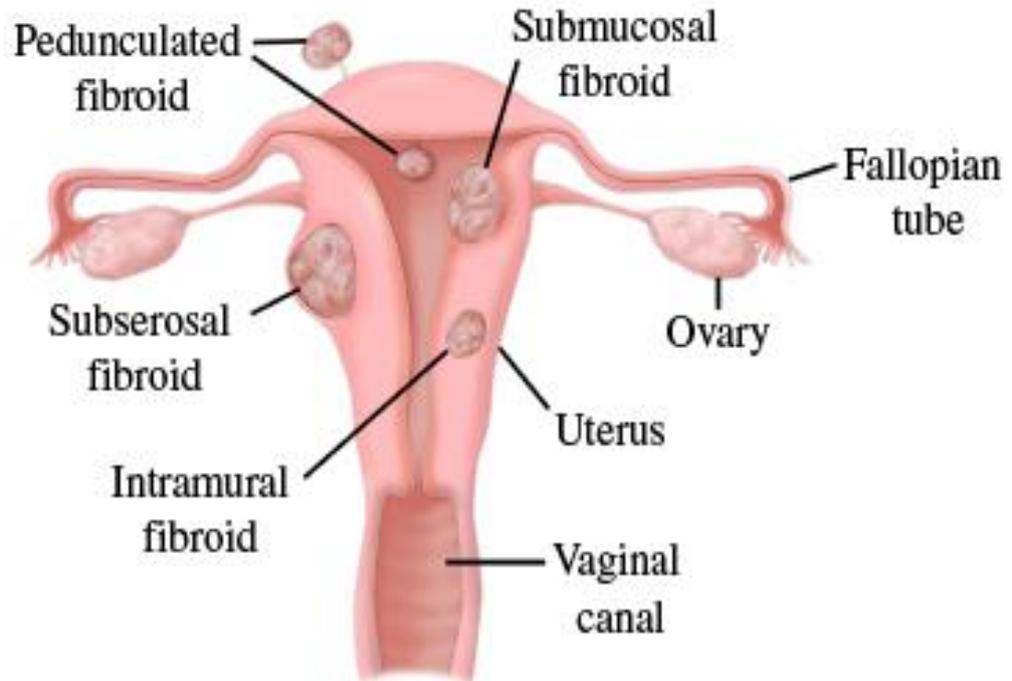


Figure (2.4) Sites of Uterine Fibroid (Grube et al ., 2019)

### 2.3. Historical background about the Fibroids(Leiomyoma)

There were just a few epidemiological studies on uterine Leiomyoma prior to the mid-1990s that used pathology reports to identify patients. Given the wide spectrum of UL symptoms, designs based on surgically identified cases are more likely to discover risk variables for severe symptoms or acceptance of major surgery than risk factors for tumor initiation. Studies based on new clinical diagnoses or the discovery of UL at screenings with pelvic imaging include cases with a wide spectrum of symptoms, from mild to severe (Zimmermann et al ., 2012) .

The uterine fibroid, also known as fibromyoma or leiomyoma, is a benign muscle tumor. Fibroids have existed from prehistoric times, and the

ancients were aware of them. Several cases of calcified fibroids have been discovered in Egyptian mummy remains. Fibroids and cancer were both referred to as (moles) . Cancer has been dealt with in detail and the term “oncology” is derived from them. Buqraat (c. 400 B.C.) called them ‘womb stones’ and Jalinoos (c.170 A.D.) described them as (scleroma) . Abul Hasan Tabri (810-895) dedicated one full chapter on fibroids and has dealt with it very deeply. He has mentioned different medical and surgical treatments. He has mentioned fibroids as a cause of infertility and abortion . He has also mentioned the cause of fibroids as (viscid phlegm). Sabit bin Qurah (836-901) has mentioned fibroids and advocated its treatment . Razi (860-925) has mentioned medical and surgical treatment for fibroids. Majousi (930-994) has given a detail account of fibroids. He considered them to be formed from viscid phlegm, which is derived from the organ itself. He has also mentioned their different sizes and encapsulation (Stewart et al ., 2016) .

Ibn Sina (980-1030) has given a detailed description of simple tumors or cold swellings, their etiology and treatment. He has also mentioned it in the uterus. Ismail Jurjani (1050-1140) considered the fibroids as cold swelling which is formed from phlegm and that every fibroids is encapsulated. He mentioned it in the uterus too. Ibn Zuhr (1090-1162) has mentioned that swellings in uterus arise from all humors and that due to phlegm are tumors. He has mentioned treatment for them. Mohammad Aazam Khan (1794-1902) has mentioned swelling in the uterus caused due to phlegm. He has also mentioned the diagnosis of the humor involved in the causation of the swelling. Rudolf Virchow (1821 1902), demonstrated their derivation from smooth muscle and introduced the designation (myoma) . Samuel Ashwell (1844) and James H. Bennett of London finally distinguished between cancer and fibroid. A.M. Heath (1845) of Manchester completed first supravaginal hysterectomy for fibroids. Charles Clay, also of

Manchester performed the second such operation soon afterwards (Ghosh et al., 2018)

Washington L. Atlee of America (1853) performed the first successful myomectomy in 1844. Walther Burnham (1853) of Massachusetts was the first to successfully remove a fibroid uterus. J. M. Klob (1863) and Carl Von Rokitansky introduced the term (fibroid). Ciniselli of Cremona (1869) popularized the electrical treatment of fibroids and this was used until the end of the 19th century. Th. Billroth suggested the name 'myofibromata' while Mallory introduced the term (leiomyoma). Fibroids, according to Kelly Cullen (1909) and Lockyer (1918), are a family disorder. Steiner (1939) described an unusual case of fibroleiomyoma metastasizing. Mahfouz and Magdi (1941) reported a series of nearly 1000 fibromyomas cases and discussed the tumor's history. Lipschut (1942) injected estrogens into guinea pigs, resulting in peritoneal but not uterine fibromyomas. To suppress the formation of fibromyomas, Goodman (1946) employed progesterone therapy, and later Luteinizing hormone releasing hormone analogues were used. Novak (1952) documented the recurrence of fibroids post myomectomy (Bouchard & Chabbert-Buffet, 2017).

#### **2.4. Viewing of the Uterine Fibroids**

Uterine fibroid (UF) is a benign tumor that develops in the uterus' smooth muscles. It has several names, including leiomyoma and uterine myoma. Uterine fibroids, the most common benign tumor in females, are more likely to occur in women in their middle and late reproductive years. Leiomyoma is derived from three Greek words: leios - meaning, smooth; myo (pronounced as 'myo') – meaning muscle; and oma – meaning tumour. Uterine fibroids (fibroid is derived from fibra which is Latin for fiber) are leiomyomata of the uterine smooth muscles. Uterine leiomyoma derive from

the myometrium and are categorized based on their locations (Stoler et al ., 2020) .

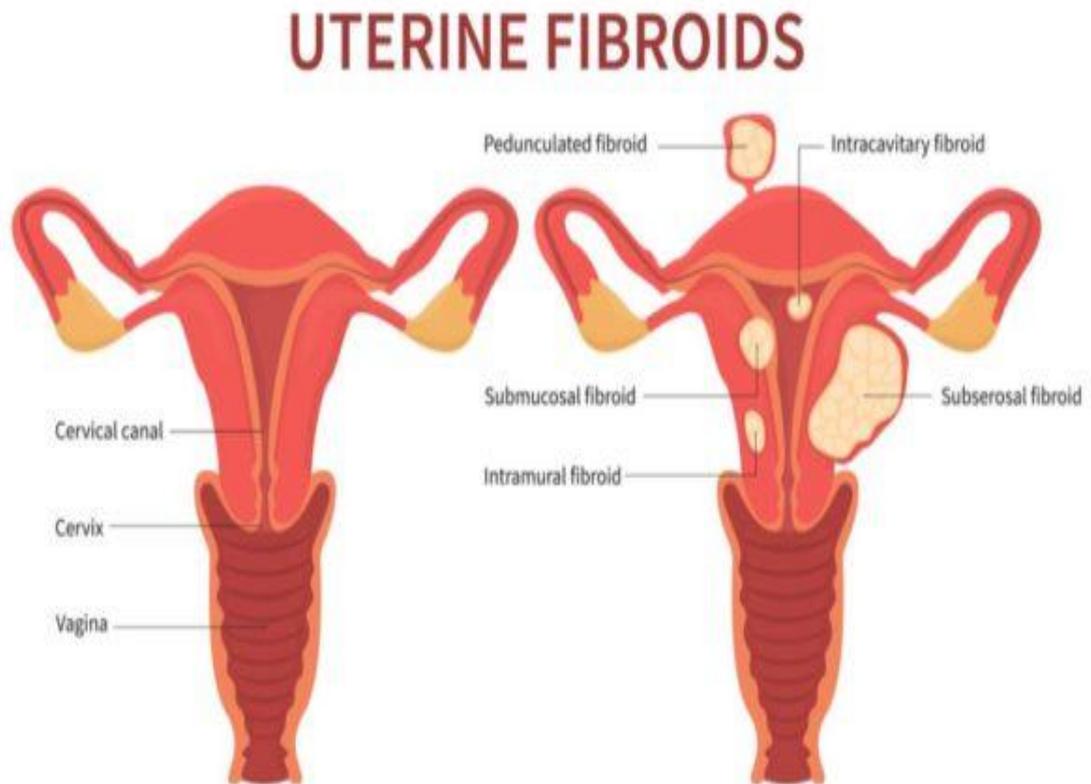
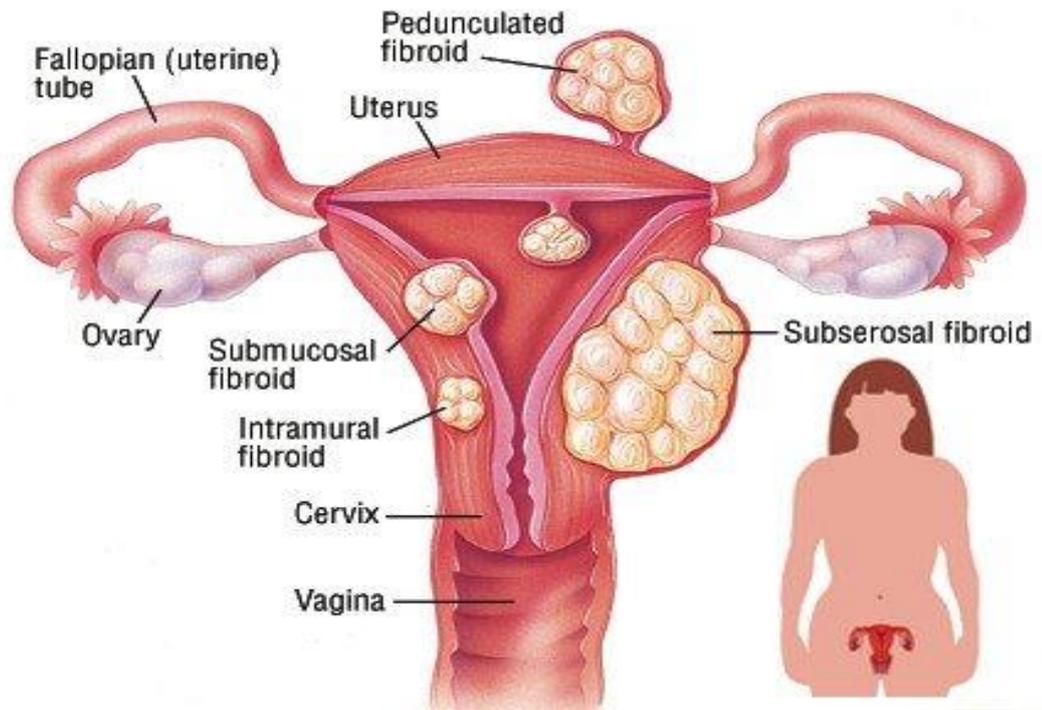


Figure (2.5)Uterine leiomyoma (Stewart et al ., 2016)

Uterine leiomyoma are the most common pelvic tumor in females. They are noncancerous monoclonal tumors arising from the smooth muscle cells and fibroblasts of the myometrium. They arise in reproductive-age females and, when symptomatic, typically present with symptoms of not normal hemorrhage in uterine and/or pain in the pelvis /pressure. Uterine fibroids may also have reproductive effects (Stewart et al., 2019).



Figure(2.6) Uterine fibroids (leiomyoma) (Romano & Doll, 2020)

Uterine fibroids (leiomyoma) are the most common gynecological tumor's affecting premenopausal women. They are benign, hormonally dependent tumor's arising from the myometrium layer of the uterus. Fibroid tissue is comprised mainly of extracellular matrix and characterized by a low mitotic index and is usually considered slow growing (Ghosh et al., 2018).

Leiomyoma of the uterus is the most common tumor of the female pelvis. These tumors are present in approximately one –third of women of reproductive age. These neoplasms frequently cause abnormal period, pelvic pain, and pressure symptoms of surrounding organ. Large leiomyoma may compress the bladder and /or uterus, with potential for renal damage if not correlated, fibroid tumors are associated, with menorrhagia, pelvic pain, or

urinary obstruction symptoms, infertility, and pregnancy loss (Stewart et al., 2017) .

## **2.5. Epidemiology of Uterine Fibroids Globally**

Uterine fibroids are the most common tumor in women, affecting nearly 70% of women by the time they reach menopause, according to estimates. They are expected to be practically noticeable at 27% of reproductive-female age and to appear features severe neighing to prompt therapy in 25% of female with fibroid (Taylor et al ., 2015) .

Fibroids are the commonest benign uterine tumors and it is estimated that they occur in 20–40% of women during their reproductive years . They can cause a wide range of clinical symptoms such as heavy menstrual periods, pressure symptoms to surrounding organs and fertility problems . As a result, surgery for uterine fibroids is common, and in both the UK and USA fibroids are the primary indication for hysterectomy (Parker, 2007) .

Uterine leiomyosarcoma (LMS) accounts for more than half of all uterine sarcomas and 1.3 % of all uterine malignancies worldwide . The annual incidence is predicted to be (0.55) per (100 000) women, with a frequency of LMS detected incidentally on hysterectomy specimen analysis ranging from (0.2 - 0.49) % , with considerable increases in the fourth and seventh decades of life (Seddon & Davda, 2011) .

In the United States, they account for roughly 30% of all hysterectomies and \$9.4 billion in yearly health-care costs among women aged (18 to 44) year. Inpatient admissions for UL grew by more than 20% in U.S. hospitals from (1993 – 2003), and UL remains the most common diagnosis among inpatient hospitalizations for gynecologic diseases in women 15–54 years of age. Between (1997 - 2005), the number of

hysterectomies due to UL fell from (31.4) % to ( 26.9%) . During the same time span, however, rates of alternative surgeries such as myomectomy (removal of fibroids) and (UAE) artery embolization have increased (Whiteman et al., 2010) .

In Brazil, there are no accurate epidemiological data for this disease; but some studies indicate there is 60 % of women present these tumors, only 20 to 30% of them present symptoms, such as pelvic pain and abnormal uterine bleeding (AUB) . however, the number of removal of uterus performed in this country has stabilized,<sup>3</sup> even though clinical management of UF is still a challenge. The most prevalent complaints were abnormal uterine bleeding (93.8%), pelvic pain (36.3%) and extrinsic compression (10.6%) (Oliveira Brito et al., 2017). As well as, another study show the prevalence of UF in Brazil about 23.3% of the female population, where this disease effecting 20–30% of women at childbearing age, and more than 40% of women over 40 years old (Silva et al., 2016).

Between 2005 and 2014, there were 2501 hysterectomies and 922 myomectomies performed in Peru. All myomectomies were performed via the abdominal method, with the average age of patients suffering from uterine fibroid ranging from (27 to 61) years (Yanque, 2019) .

Ultrasonography evidence of uterine myomas was detected in 21.4 percent of female in the time before menopause with aged ranged between 32 to 61 years who were not searching about gynecological care in active manner in an Italian investigation. Among 36 percent and 520 percent of female with myomas in uterus diagnosed on ultrasonography may search therapy due to signs (Marsh et al., 2018).

In a recent assessment of 12 French hospitals, uterine myomas were the second most common reason for hysterectomy for benign illnesses, accounting for (29.4%) of cases. Abnormal uterine bleeding was the most common symptom (31.9 %). Another study found that (38.5%) of all hysterectomies in England and Scotland were performed because of uterine myomas (Pavone et al ., 2018).

In an attempt to quantify the financial burden of myomas on the health system, one study used national inpatient and outpatient statistics to compute the annual cost of myomas to payers in the United States in 2000 for a population of 140.8 million women. Inpatient charges totaled \$1687 million in the United States, with outpatient surgical costs totaling \$227 million. Direct medical costs for the year was \$2151 million, primarily due to physician visits and diagnostic testing. Invasive interventions, which include both inpatient and outpatient surgery, accounted for 89 percent of total yearly direct spending, with inpatient interventions accounting for 78% of total direct costs (Wise &Laughlin-Tommaso, 2016).

## **2.6. Types of Uterine Fibroids**

The position of uterine fibroids in relation to the surrounding myometrium is widely used to describe them. Intramural (IM), sub-mucous (SM), sub-serosal (SS), and cervical uterine fibroids are the most common subgroups. Intramural (centered in the muscular wall of the uterus), subserosal (just beneath the uterine serosa), and submucosal are the three most prevalent forms ( just beneath the endometrium) . The pedunculated leiomyoma, which develops on stump-like structures, is a subset of the subserosal group. Intramural leiomyoma is the most common type of leiomyoma that develops from within the myometrium. The cervix is the source of about 5% of uterine myomas (Madsen et al.,2012) .

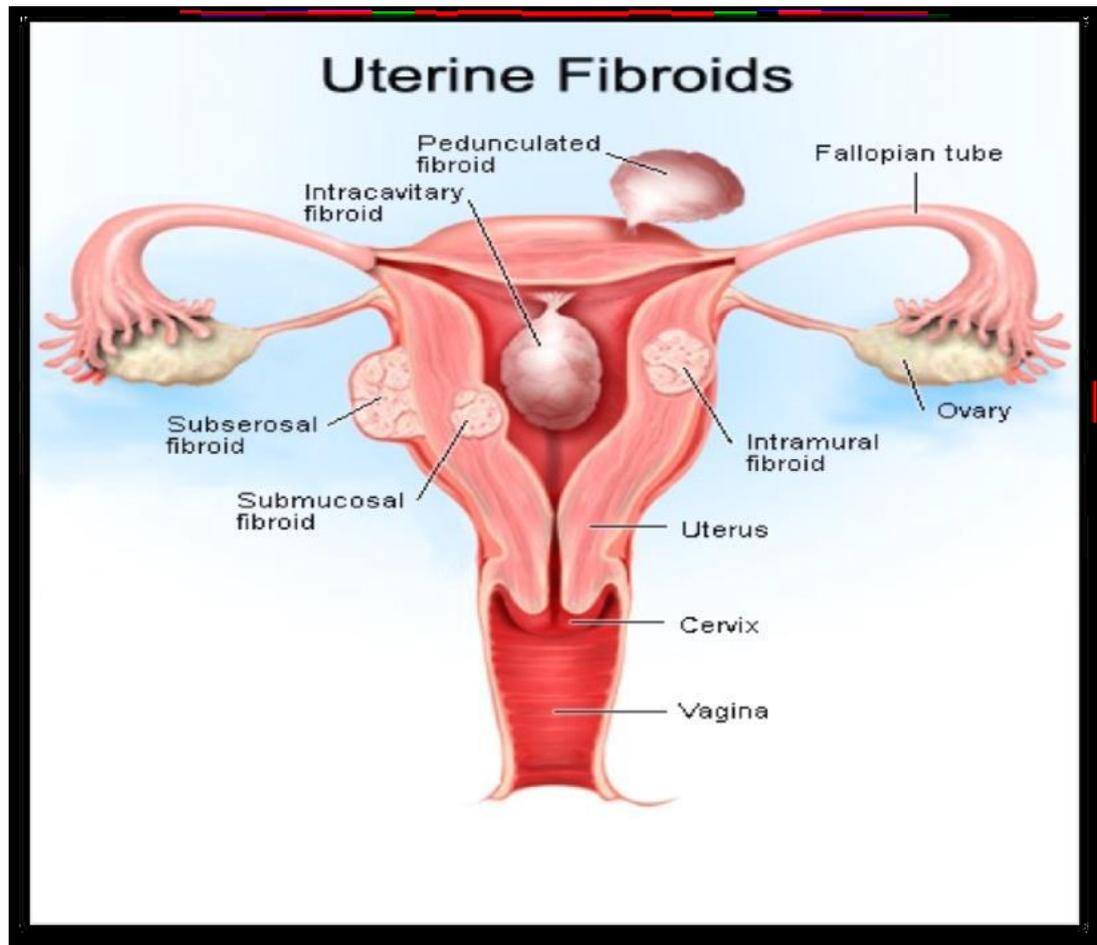


Figure (2.7) Uterine Fibroid and Classification (Maximilion et al ., 2014)

Submucous fibroids make up about 5% of all fibroids, although this may be underestimated due to poor imaging. Fibroids with an endometrial lining that protrude into the uterine cavity are known as endometrial fibroids. This category contains pedunculated SM fibroids with a stalk that protrudes into the uterine cavity and can occasionally prolapse through the cervix (Shaw et al., 2011) .

The European Society for Gynecological Endoscopy accepted a new arrangement approach for SM fibroids proposed by Wabgsteker (ESGE). That intramural component a fibroid is described using this categorization.

Type 0 fibroids are pedunculated fibroids with no intramural expansion. Type I SM fibroids are those that lack a shank or pedicle and have an consist of intramural that is lower than 50%. Type II means there is a significant intramural component (Mazo, 2020).

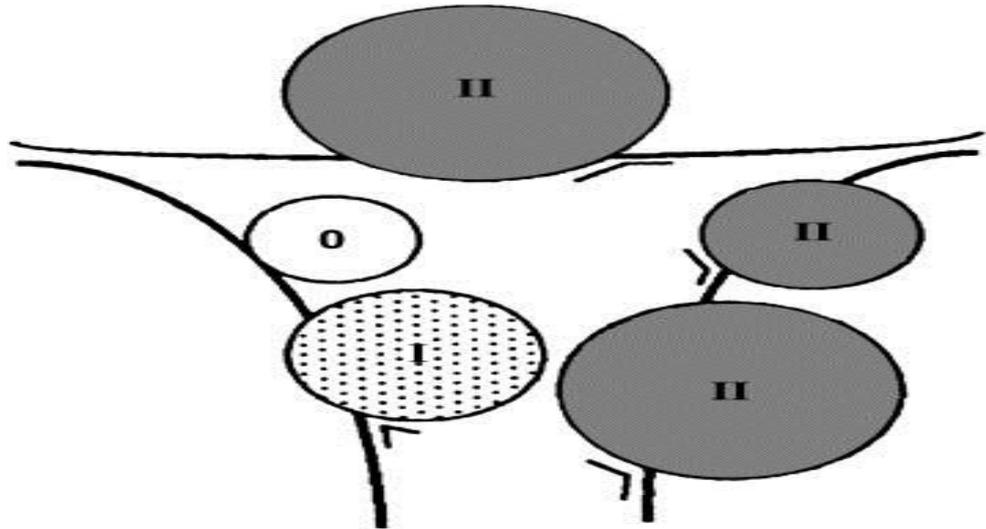


Figure (2.8) Wamsteker and ESGE classification depending depth myometrium penetration (Mazo , 2020)

	Feature
Type 0	Pedunculatsed Intra-cavities
Type 1	<52% Intramuraling
Type 11	≥52% Intramuraling

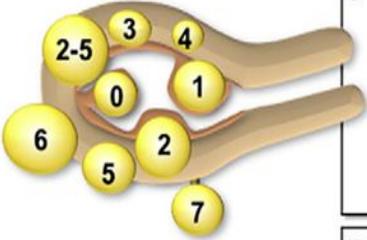
Submucous myomas are typically difficult to deal with, both in terms of symptoms and potential effects on fertility., although being smaller in size than the (intramural and sub serosal) fibroids. Distortion of the endometrial cavity may have an effect on menstrual loss and fertility. For SM fibroids with more than 50% of the fibroid tissue extending into the uterine canal, trans-cervical fibroid excision (TCRF) may be an option. Pedunculated

fibroids can be very troublesome because they can prolapse through the cervix, causing ulceration and infection (STRAUB et al ., 2010) .

The International Federation of Gynecology and Obstetrics (FIGO) came up with a new classification system for irregular uterine bleeding. It included intramural and subserosal uterine fibroids as well as other types of fibroids (Munro et al., 2011) .

## Classification of Fibroids

**Leiomyoma subclassification system**



SM - Submucosal	0	Pedunculated intracavitary
	1	<50% intramural
	2	≥50% intramural
O - Other	3	Contacts endometrium; 100% intramural
	4	Intramural
	5	Subserosal ≥50% intramural
	6	Subserosal <50% intramural
	7	Subserosal pedunculated
	8	Other (specify e.g. cervical, parasitic)
<b>Hybrid leiomyomas</b> (impact both endometrium and serosa)	2-5	Two numbers are listed separated by a hyphen. By convention, the first refers to the relationship with the endometrium while the second refers to the relationship to the serosa. One example is below Submucosal and subserosal, each with less than half the diameter in the endometrial and peritoneal cavities, respectively.

Figure(2.9) FIGO classification of uterine fibroids (Munro et al., 2011)

fibroids that grow within the uterine wall and are isolated from myometrium by a layer of connective tissue termed the pseudo-capsule or false capsule are called intramural (IM) fibroids. Although these fibroids are the most common type of uterine fibroids, surgical removal of them might be challenging because of their deep location within the uterine tissue. IM

fibroids, like SM fibroids, can deform the endometrial cavity, increasing menstrual discomfort and perhaps impacting fertility, depending on their size (Cucinella et al., 2011) .

Fibroids called "sub-serosal" (SS) extend from the uterus's serosal surface into the abdominal cavity, yet they are placed above the myometrium's wall. An extremely unusual but serious complication of this type of uterine fibroids is the twisting of the uterine body (or "stalk") . Fibroids in the subserosal space with a very small stalk might detach and cause difficulties. The parasitic myomas syndrome is caused by the detachment of an SS uterine fibroid . These lesions could occur as a result of peritoneal metaplasia, according to one theory (Al-Talib and Tulandi, 2010).

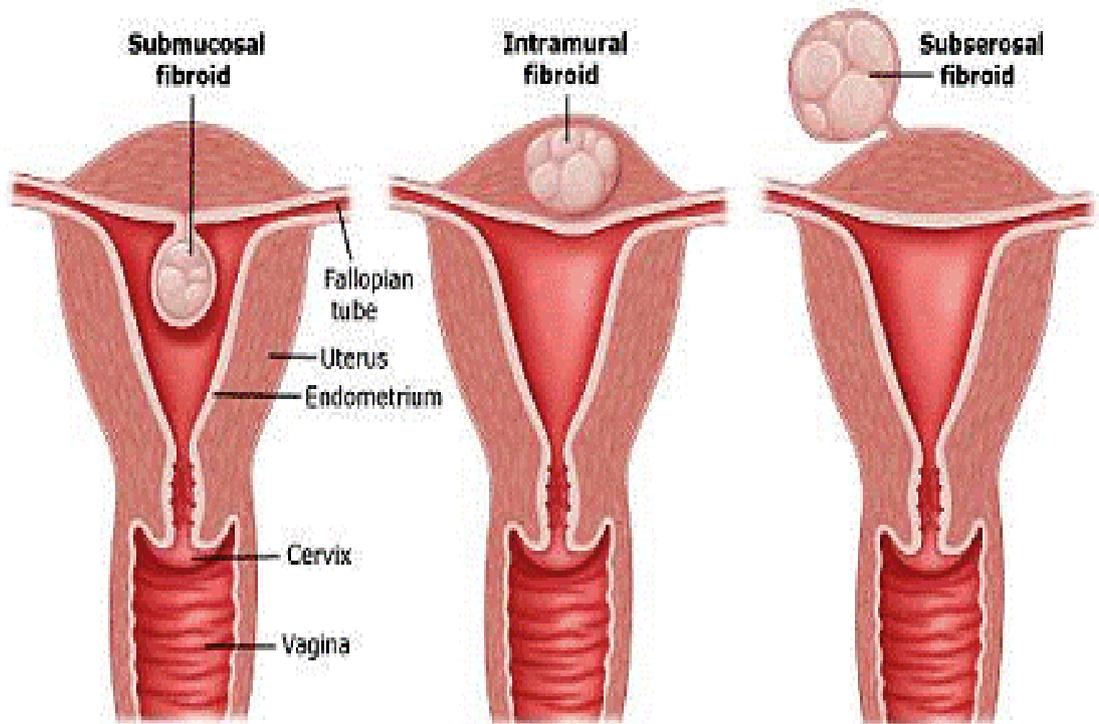


Figure (2.10) Types of Uterine Fibroids (Zhao et al ., 2017)

Cervical fibroids are fibroids that arise from the cervical wall and are rather uncommon. They present a substantial challenge to the surgeon due to their relative inaccessibility and proximity to the bladder and ureters. The uterus may migrate upward and the fibroid may impaction, resulting in urine retention or ureteric obstruction. Cervical fibroids are thought to reduce fertility by narrowing the cervical canal; nonetheless, if pregnancies do occur, complications include hemorrhage, birth canal obstruction, infection, pain, and urine stasis (Straub et al., 2010) .

Vaginal fibroids are uncommon; they are most commonly encountered in people between the ages of 35 and 50, whereas vaginal leiomyoma are usually found in the midline anterior vaginal wall as a single, well-circumscribed mass. It was a left vaginal wall mass in the lower one-third of the vaginal wall in this case. Vaginal leiomyoma presents in a variety of ways, including vaginal bleeding, lower abdomen pain, frequent micturition, dyspareunia, dysuria, and other urinary obstruction symptoms (Chakrabarti et al., 2011) .

Rarely, leiomyomata may occur without evidence of a uterine origin in places such as the broad ligament and peritoneal cavity. Leiomyomata are considered hormonally responsive, benign tumors, because estrogen may induce their rapid growth in high-estrogen states, such as pregnancy. In contrast, menopause generally causes cessation of tumor growth and even some atrophy. Estrogen may work by stimulating the production of progesterone receptors in the myometrium. In turn, progesterone binding to these sites stimulates the production of several growth factors, causing the growth of myomas. Although exact mechanisms are unknown, chromosomal translocations/deletions, peptide growth factor, and epidermal growth factor are implicated as potential pathogenic factors of leiomyoma. Sensitive DNA

studies suggest that each myoma arises from a single smooth muscle cell and that, in many cases, the smooth muscle cell is vascular in origin (Westhoff et al ., 2011) .

A rare cancer called leiomyosarcoma can form in the uterine smooth muscle. These are assumed to be a new neoplasm rather than "degeneration" of a fibroid. Postmenopausal women with quickly increasing uterine lumps, postmenopausal hemorrhage, atypical vaginal discharge, and pelvic pain are more likely to have uterine cancer . An increasing uterine growth in a postmenopausal woman should be viewed with far greater suspicion of cancer than in a younger woman with the same condition. Other sarcomatous tissue elements are found in these heterologous, mixed malignancies that are not necessarily found in the uterus (Abadir et al ., 2014) .

## **2.7. Clinical Features of Uterine Fibroids**

The most prevalent gynecological issues among women presenting to gynecology emergency and outpatient departments are caused by uterine fibroids. They are frequently asymptomatic, although they can cause a variety of symptoms, including abnormal uterine bleeding (AUB), pelvic pressure, urine incontinence or retention, and pain. They've also been linked to reproductive issues like infertility and miscarriage. The presenting symptoms are crucial in determining the best therapy option for the affected woman. The severity of the symptoms, the size and location of the fibroid, the patient's age and chronological proximity to menopause, and the patient's desire for future fertility are all factors that influence management techniques. Because the majority of women with uterine fibroids are asymptomatic, they receive less medical attention, and fibroid tumors frequently go untreated (Chudnoff et al ., 2013) .

The most common presenting sign of uterine fibroids is bleeding. The most common symptom is an increase in menstrual flow that lasts longer than usual (menorrhagia, defined as monthly blood loss of >80 mL) that occurs gradually over time. This bleeding could be caused by the underlying tumor distorting the endometrial cavity significantly (Fennessy et al., 2011).

The most prevalent sign of uterine leiomyoma is abnormal uterine bleeding (AUB). Thirty percent of women who had myomectomies experienced significant menstrual bleeding, the cause of AUB linked to leiomyoma is uncertain. Endometrial surface area, vascular deregulation, and difficulties with endometrial hemostasis are all possible causes. (Carranza-Mamane et al., 2015).

Menorrhagia, pelvic pain, obstructive symptoms, infertility, and pregnancy loss are common symptoms of uterine fibroid tumors. The most prevalent signs of uterine fibroid tumors are menstrual irregularities, including menorrhagia. Menorrhagia is frequently linked to sub mucosal tumors, however there is no indication that the endometrium underlying these tumors varies from that overlying other parts of the uterus. Fibroid tumors can cause vascular anomalies that contribute to menorrhagia by disrupting local growth factors. And have nothing to do with where they are in the uterus (Rajan et al., 2011).

Pelvic pain and pressure are less typically associated with uterine fibroid tumors than they are with other types of tumors. The cases reported in the literature have documented extremely big tumors that have resulted in pelvic discomfort along with respiratory failure, urinary complaints, and constipation. Symptoms of urinary tract blockage can occur during pregnancy when big fibroid tumors and uterine enlargement are present in

combination. abdominal pain (attributed to the degeneration of fibroid tumors) and, if the tumor is positioned retro placental, an increased risk of placental abruption if the tumor is located retro placental (Del et al ., 2011) .

Pelvic pain is rare with fibroids and usually signifies degeneration, torsion, or possibly associated adenomyosis and/or endometriosis. Pelvic pressure, bowel dysfunction, and bladder symptoms such as urinary frequency and urgency may be present with larger fibroids. Urinary symptoms should be investigated prior to surgical management of fibroids to exclude other possible causes. In the postmenopausal woman presenting with new onset of pain and/or bleeding in new or existing fibroids, leiomyosarcoma should be considered (Munro et al ., 2012) .

## **2.8. Causes and Risk Factors of Uterine Fibroids**

The cause of fibroids is unknown . Although the methods by which uterine fibroids form and develop are still poorly known, there are several risk variables to consider . Null parity, early menarche, higher menstrual frequency, dysmenorrhea history, uterine fibroids in the family, African origin, obesity and age are the most common risk factors for the development of uterine fibroids (peak incidence at 40 to 50) . Hypertension and diabetes are two clinical factors that appear to enhance the development of fibroids (Munro et al ., 2011) .

The condition has been linked to biological, demographic, reproductive, and lifestyle variables as risk factors for the development of UFs . Age was determined to be the most significant risk factor for UFs, increasing their

frequency up to tenfold. During the reproductive years, UFS tends to rise, and then drops following menopause. Retrospective investigation of Women aged (41-50) or (51- 60) were 10 times more likely than women aged (21-30) to have UFs, according to ultrasonography data from UK women with UF symptoms. Postmenopausal women, i.e. those over the age of 60, had a lower UF risk. The prevalence of UFs in women over the age of 40 was four times greater than in women under the age of 40, according to a comparative retrospective review of ultrasound records in the United Kingdom (Shen et al ., 2013) .

A familial history of fibroids has also been linked to a higher risk of UFs . Women with a positive family history of UFs were more than three times as likely to develop UFs as those who did not have such a history. Positive family history has also been linked to an increased risk of UF. This effect could, at least in part, be explained by the fact that relatives of women with UFs are screened more frequently than the general population. It could possibly be due to the influence that hereditary variables play in the development of UFs (Sparic et al ., 2016) .

Parity was found to have the strongest protective impact; having birth was linked to a fivefold lower chance of UFs requiring surgical treatment than null parity. Reduced menstrual cycling and changes in hormone exposure due to pregnancy, as well as myometrium ischemic involution and remodeling during and after parturition, may have an effect on UF prevalence. The importance of parity in UF risk is difficult to measure because to multiple confounding factors such as the negative impact of UFs on fertility. Women who had given birth three or more times had a risk of UFs that was less than one-fifth that of nulliparous women (Marsh et al ., 2013) .

Women with hypertension, A systolic blood pressure of 140 mmHg and a diastolic blood pressure of less than 90 mmHg are both considered high blood pressure, or current antihypertensive drug use, had a roughly fivefold higher risk of UFs than women with normal blood pressure (Wise et al ., 2010) .

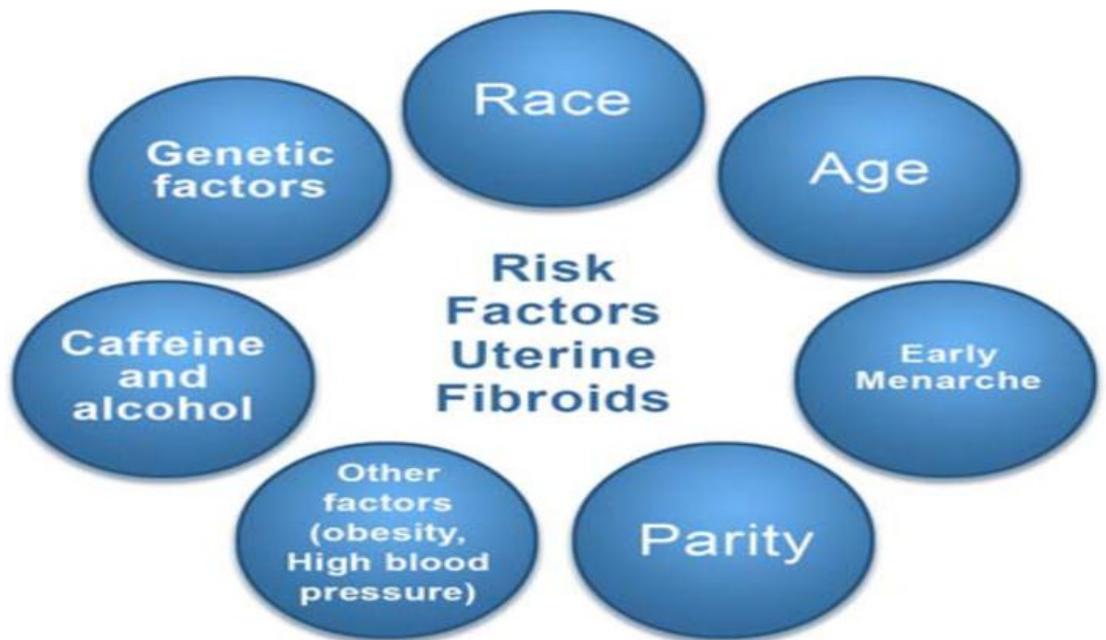


Figure (2.11) Risk factors for uterine fibroids (Lieng et al ., 2015)

Uterine fibroids are more common in black women than in white women, and their prevalence varies by ethnicity. Black women are more likely than white women to have larger fibroids and a greater number of individual fibroid tumors within the uterus, as well as anemia and severe pelvic discomfort (Fletcher et al., 2013) .

Black women are more likely than white or Hispanic women to have polymorphisms in the estrogen receptor alpha (ER) genotype (PP genotype), compared to white or Hispanic women. ER PP genotype is related with a higher incidence of uterine fibroids in both black and white women, as well

as a greater volume of fibroid tissue than other fibroid genotypes in both black and white females. When compared to white women, black women showed higher levels of aromatase messenger RNA (mRNA). Aromatase is a critical enzyme in the production of estrogen, and it is likely that this is a contributing factor to the increased fibroid incidence and growth observed in African-American women (Zhou et al., 2011) .

Obesity has been linked to an increase in body mass index (BMI), which has been linked to fibroid growth. According to a prospective study, every 10kg increase in body weight leads to a 21% rise in fibroid incidence. Increased adiposity, particularly in those with android adiposity, may enhance peripheral estradiol production. This has been observed in women with fibroids who were identified after menopause and whose only source of circulating estrogen was adipose cells (Dandolu et al ., 2010) .

Adipose tissue converts adrenal and ovarian androgens to estrogens, but obesity reduces the synthesis of sex hormone binding globulin through multiple methods. It's unclear whether certain diet choices, such as red meat, ham, green vegetables, or fiber, have an impact on myomas' growth. It's also difficult to assess the impact of physical activity on the development of uterine myoma (Nair and Al-Hendy, 2011) .

Menarche before the age of (10) years has been related to an increased risk of uterine myomas, whereas menarche after the age of (16) years appears to reduce the risk . According to certain research, increasing parity is associated with a lower incidence and number of clinically evident myomas. This could be attributed to the extracellular matrix (ECM) remodeling and a particular expression of peptide and steroids hormone receptors induced by pregnancy and parturition (Saldana et al ., 2013) .

## **2.9. Diagnostics Tests Used in Uterine Fibroids**

General practitioners (GPs) make the majority of first uterine fibroids diagnosis in the community based on clinical history and abdominal palpation . In the suprapubic area, a movable, hard, non-tender mass is usually perceptible. This diagnosis is usually confirmed with a 2-dimensional (2D) ultrasonography (US) . Ultrasound's capacity to detect coexisting pathology (such as pelvic masses) is restricted, and this ability may be impaired when BMI rises . Furthermore, 2D ultrasound has minimal sensitivity when it comes to detecting fibroid size, degeneration, adenomyosis, and the location of the uterus and uterine fibroids in relation to other organs (Kirby et al ., 2011) .

Uterine fibroids may be suspected upon abdominal or bimanual examination . An enlarged uterus or tumor may be found during a pelvic examination. A hemoglobin test can show iron deficiency anemia if a woman has excessive monthly flow and is thought to have fibroids. A variety of imaging techniques, including MRI, CT, saline infusion sonography, (SIS) hysterosalpingograms, laparoscopy, and laparotomy, may be utilized to confirm the diagnosis . Observation is suitable for women who are Asymptomatic . Around 0.5 percent of what was assumed to be leiomyoma turns out to be cancerous, but diagnostic criteria for leiomyosarcomas are still up for debate. Many patients and doctors believe that fast fibroid growth is a sign of leiomyosarcoma (Mettler et al ., 2012) .

The history and physical examination will provide appropriate clinical signs and symptoms for a diagnosis to be made . In women with HMB, a complete blood count should be performed; severe anemia is almost always accompanied with the presence of large fibroids. The mainstay of diagnosis

is abdominal and pelvic ultrasonography (TAUSS and TVUSS), which aids in determining the origin of a clinically diagnosed pelvic mass (i.e. distinguishing between a uterine fibroid and an ovarian tumor, and locating the position and size of fibroids) . Ultrasonography can also be used to rule out hydronephrosis caused by ureter pressure in the presence of big fibroids . Prior to radiological or surgical intervention, Magnetic resonance image is sometimes used to determine the form, size, and position of uterine fibroids (American Association of Gynecologic Laparoscopists (AAGL), 2012).

Both the transvaginal ultrasound scan (TAUSS) and the (TAUSS) were effective in detecting and discovering submucous and small intramural fibroids, as well as excluding hydronephrosis attributed to fibroids obstructing the ureters, respectively. Endometrial polyps and submucosal fibroids can be detected and located with (Saline infusion sonohysterography ,SIS) . Surgical hysteroscopy can remove polyps, adhesions, and sub mucosal fibroids. Hysteroscopy: was good for finding sub mucosal fibroids and endometrial polyps, as well as planning further hysteroscopy surgical therapy. Before uterine artery embolization and to assess treatment response, magnetic resonance imaging (MRI) is used to describe the form and location of fibroids (Gupta et al ., 2014) .

The use of ultrasonic screening tests is becoming more common. In people with asymptomatic UL, ultrasonography can help confirm the diagnosis and decrease misdiagnosis. These studies are the most trustworthy sources of data on UL prevalence. Exposures may be compared not only between symptomatic and asymptomatic patients, but also between cases and controls with uteri free of occult UL, and controls with and without occult UL. Abdominal or transvaginal ultrasonography provides reasonably sensitive, less intrusive confirmation of a suspected UL diagnosis when

compared to histology findings. Ultrasound, on the other hand, could be an expensive addition to a prospective study, and its sensitivity lowers as the uterus grows larger (e.g., during pregnancy) or when the number of UL in the uterus increases. Because ultrasound is limited in its ability to detect tumors smaller than 0.5 cm, establishing the exact start of the disease is problematic (D'Aloisio et al ., 2010) .

The gold standard for detecting uterine fibroids is an ultrasound. In almost every case, it is simple and affordable to check using this widely available technology. Ultrasonography can also reveal submucous myomas and intramural myomas near the endometrial cavity after saline is infused into the uterus. Imaging technology that allows for three-dimensional reconstruction of the uterus's coronal plane has made 3D ultrasonography a useful tool in the study of myometrium pathology (Seshadri et al ., 2015).

Although MRI is more expensive than ultrasound for UL diagnosis, it is more accurate for UL mapping, particularly in larger uteri or multiple UL. Only a small proportion of women with a radiologic diagnosis will undergo surgery and histologic confirmation (gold standard). Surgery records and pathology findings provide the most detailed information on the size, location, and number of tumors. Women who require a hysterectomy, on the other hand, have usually failed to respond to medical or nonsurgical treatment and are at the symptomatic end of the illness spectrum. As a result, epidemiologic studies limited to hysterectomy patients may identify risk factors that act late in the tumor's genesis and development. Identifying the etiology or alternatives for early intervention becomes more difficult when UL have developed to a substantial size, as they have presumably been present for many years (LeBlang et al ., 2010) .

MRI can assess the number of fibroids, their size, vascularization, connection to the uterine cavity, serosal surface, and boundaries with normal myometrium . It should be highlighted, however, that MRI, like ultrasonography, cannot be used to confirm a cancer diagnosis. While MRI data may suggest sarcoma, there is currently no way to completely rule it out before surgery (Lin et al ., 2015) .

Hysteroscopy may be necessary to distinguish between intracavitary myomas and big endometrial polyps. There is no anesthetic required for hysteroscopy, which is typically conducted in an outpatient setting . Additional testing, such as ultrasound with saline infusion and diagnostic hysteroscopy, should be considered when a hysteroscopic myomectomy is required. In cases of irregular bleeding or if the patient has risk indicators for endometrial hyperplasia, hysteroscopy and endometrial biopsy may be combined (obesity, chronic anovulation) (Parazzini et al ., 2016) .

## **2.10. Management of Uterine Fibroids (Therapeutic and Surgical)**

### **2.10.1 Expectant & Medical management**

For the treatment of uterine fibroids, there are several options. Factors such as the women's desire to become pregnant in the future, the necessity of uterine preservation, symptom severity, and tumor features may all influence the treatment plan . Therapeutic management based on the size of the myomas and the woman's symptoms. Several treatment options exist, ranging from watchful waiting to surgery, the management include therapeutic, non-surgical and surgical procedure (Vitale et al ., 2015) .

The size and location of the tumors, the patient's age, symptoms, desire to maintain fertility, and availability to therapy, as well as the physician's

experience, should all be considered while treating uterine fibroids. The ideal treatment achieves four objectives: relief of signs and symptoms, long-term reduction of fibroids' size, fertility preservation (if desired), and avoidance of harm . women with asymptomatic fibroids, watchful waiting is preferred for management called (Expectant management) (Johnson et al ., 2013) .

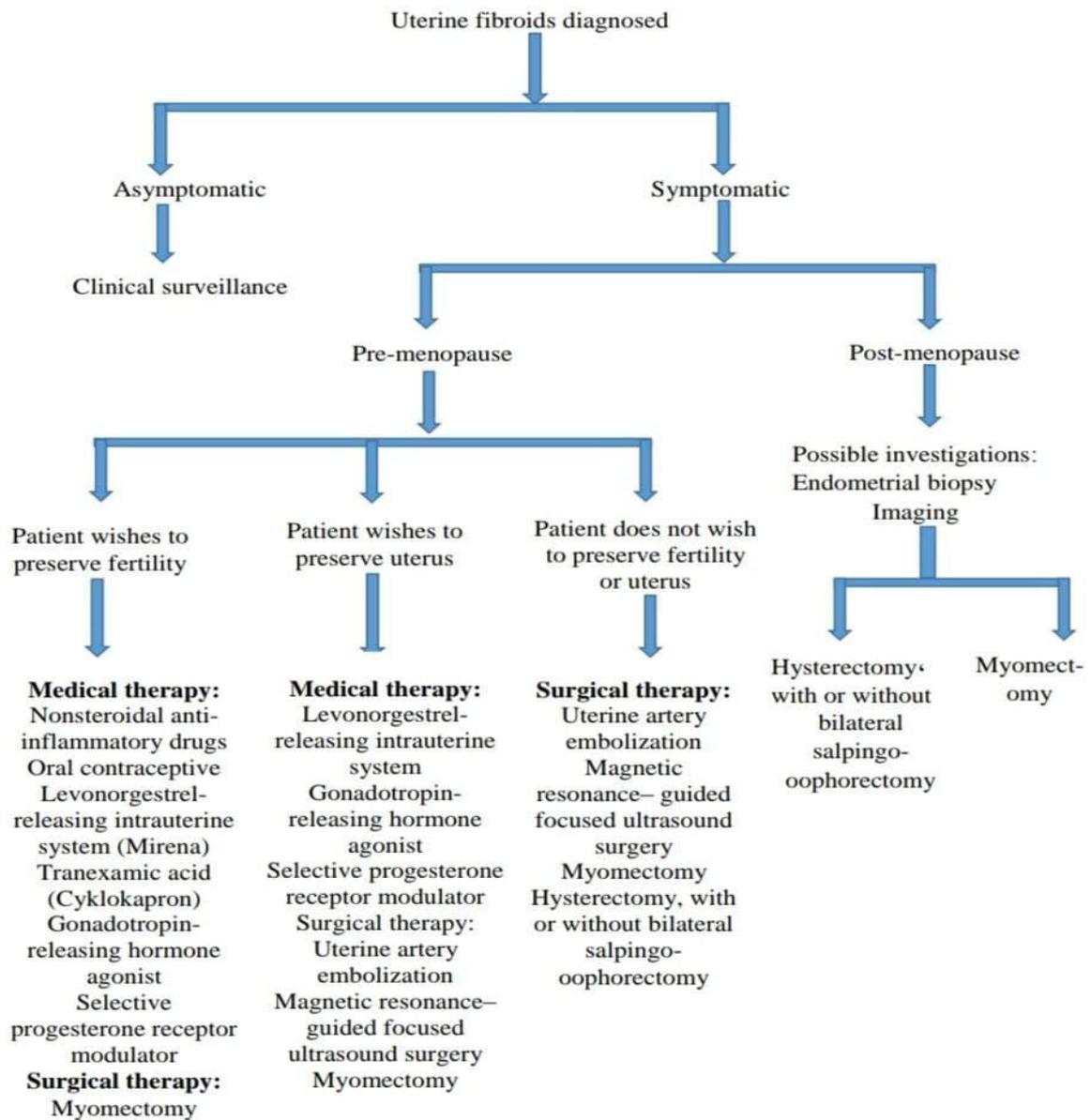


Figure (2.12) Algorithm for the management of uterine fibroids (Vilos et al ., 2015)

Hormonal contraceptives, tranexamic acid, and nonsteroidal anti-inflammatory medications are among the medicinal treatments used to reduce heavy menstrual bleeding, symptoms, and tumor growth. Patients who require symptom relief prior to surgery or who are approaching menopause may benefit from gonadotropin-releasing hormone agonists or selective progesterone receptor modulators. This can be accomplished with gonadotropin-releasing hormone (GnRH) agonists such as leuprolide (Lupron), nafarelin (Synarel), or goserelin (Zoladex), which stop ovulation and the production of estrogen, or low-dose mifepristone, a progestin antagonist. Both have produced regression and reduced the size of the tumors without surgery, but long-term therapy is expensive and not tolerated by most women. The side effects of GnRH medications include hot flashes, headaches, mood changes, vaginal dryness, musculoskeletal malaise, bone loss, and depression. Long-term mifepristone therapy can effect in endometrial hyperplasia, which increases the risk of endometrial cancer. Once either therapy is stopped, the fibroids typically recur (King & Brucker, 2011).

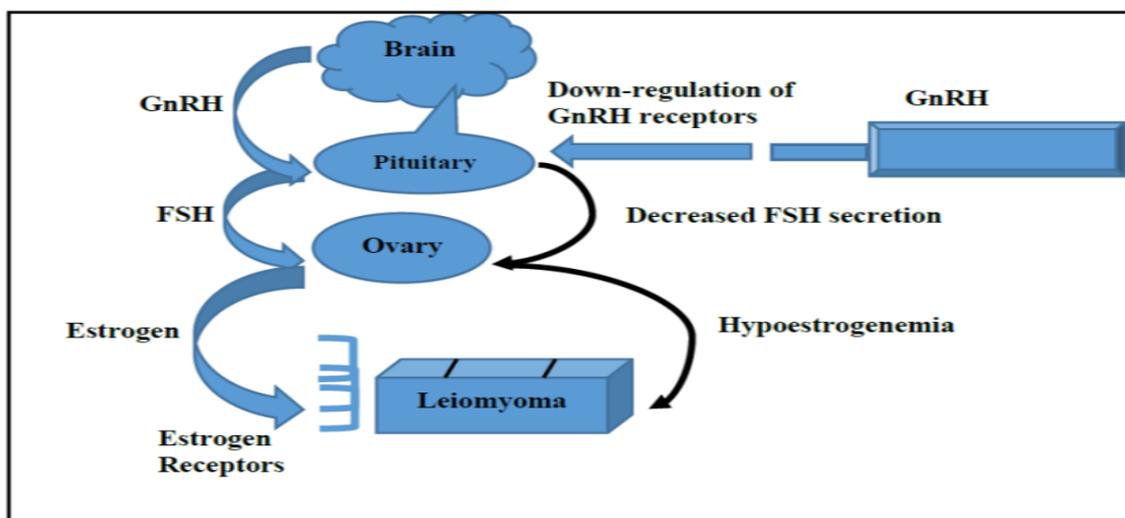


Figure (2.13) Mechanism of action Gonadotropin-releasing hormone agonistic (GnRH-agonists) (Reidy et al., 2014).

When asymptomatic fibroids are discovered by chance, medical treatment (Conservative) management is appropriate. The main types of medical treatment for HMB, namely the levonorgestrel intrauterine system (LNG-IUS), tranexamic acid, mefenamic acid, and the combined oral contraceptive pill (COCP), are ineffective in the presence of a submucous fibroid or an enlarged uterus that is palpable abdominally (>12 weeks size). Injectable gonadotrophin-releasing hormone (GnRH) agonists, which cause menopause by shutting down ovarian oestradiol production, are the only effective medical treatment. However, due of severe menopausal symptoms, GnRH medication is not tolerated by all women (Johnson et al ., 2013).

Although it has been demonstrated to be equally efficient as GnRH agonists in lowering fibroid volume and improving HMB symptoms, the selective progesterone receptor modulator (SPRM) ulipristal acetate is still not commonly used in clinical practice. This SPRM, in addition to being an oral pill, does not cause menopause or the symptoms that come with it. Neither GnRH nor SPRM, on the other hand, are long-term therapy options. Furthermore, when ovarian function is restored, the fibroids regenerate to their original size (Owen & Armstrong, 2015).

Ultimately the decision as to how to manage fibroids will depend principally on presenting symptoms and a patient's desire for future fertility. As with the management of any condition it seems sensible to start with conservative (medical) measures, however for women with large fibroids and associated pressure symptoms ultimately a radiological or surgical solution will be necessary. Which technique is chosen will depend upon local expertise as well as patient preference following a detailed (Dagur et al ., 2016).

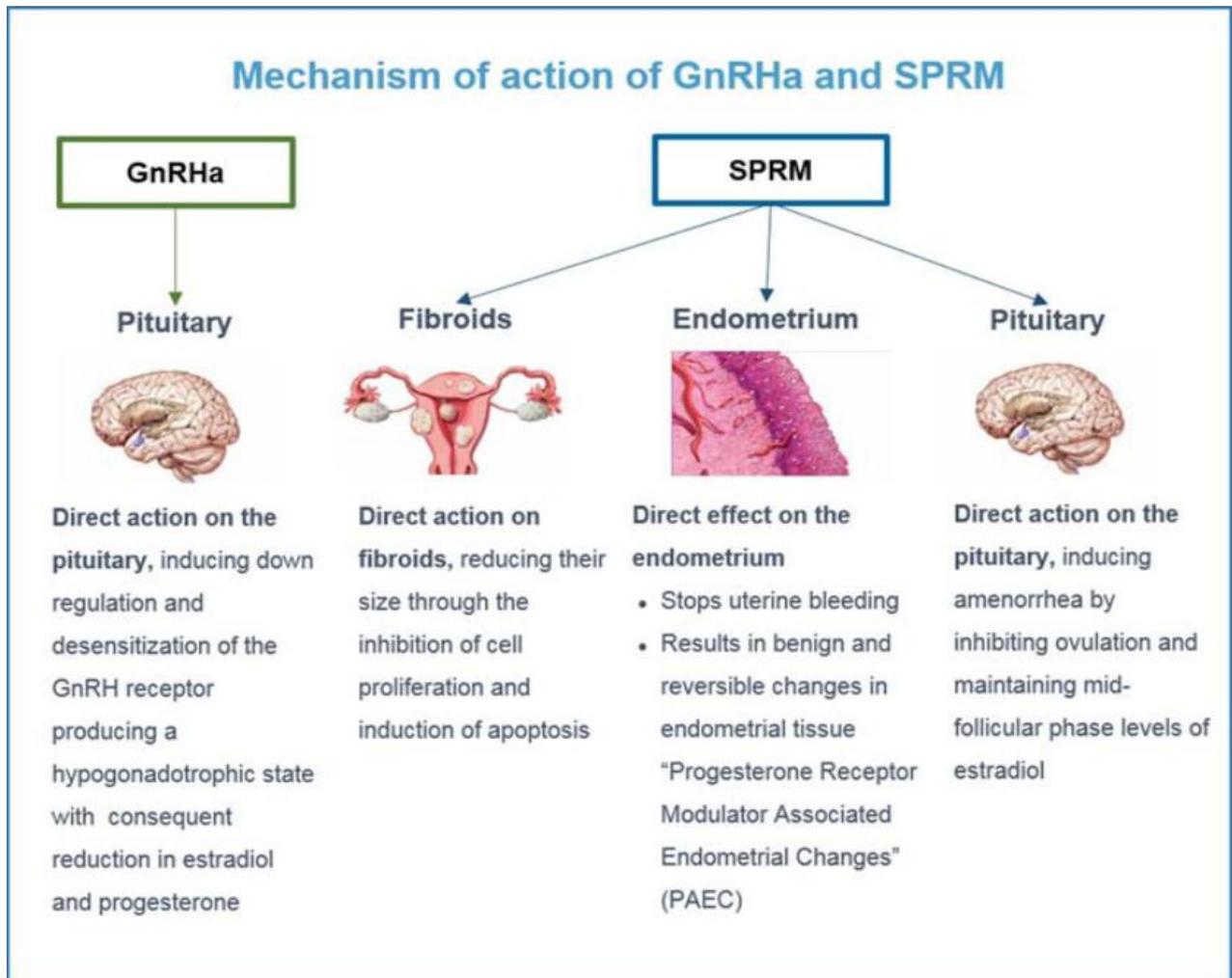


Figure (2.14) Mode of action of GnRH agonists and SPRMs (Selective Progesterone Receptor Modulators) (Ciarmela et al., 2011).

### 2.10.2 Radiological options for Fibroids

Uterine artery embolization (UAE) is an option in which polyvinyl alcohol pellets are injected into selected blood vessels via a catheter to block circulation to the fibroid, causing it to shrink and producing symptom resolution. A radiologist performs the operation by making a small incision in the groin, inserting a fine catheter into the main artery leading to the uterus, and injecting microscopic plastic or gelatin sponge particles into the

artery supplying blood to the fibroid. These particles obstruct blood flow, causing the fibroid to diminish or vanish entirely over time. In comparison to surgery, the UAE has a short-term advantage (van der Kooij et al., 2011).

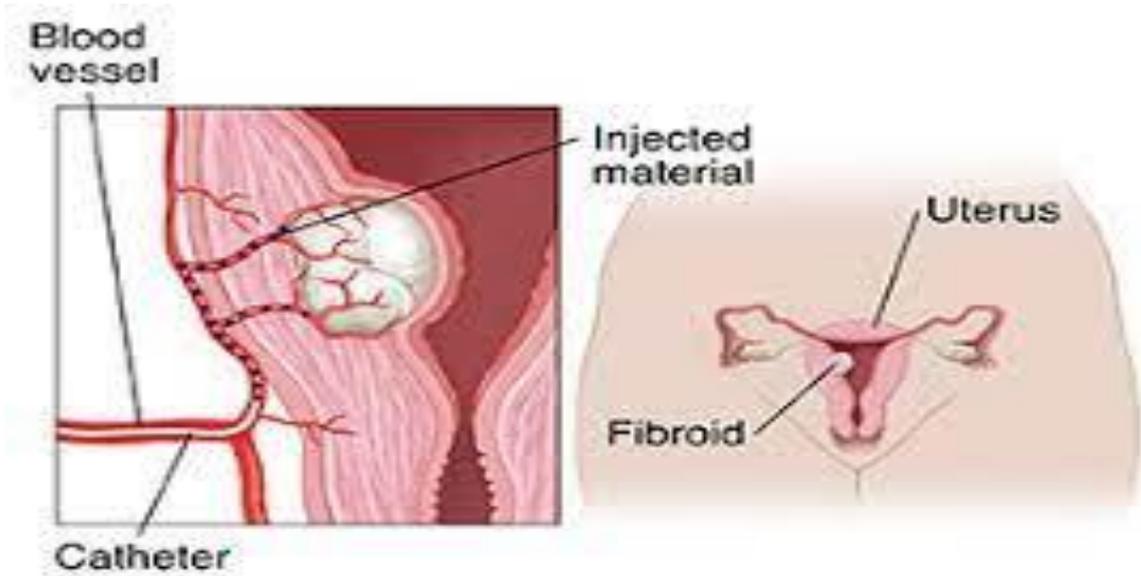


Figure (2.15) UAE procedures for uterine fibroids (Spies, 2016)

Uterine fibroid embolization (UFE) represents one of the best examples of a procedure that can only become a successful part of an interventional practice if that practice is willing to take on the responsibilities inherent to this new model. The generating referrals and providing pre- and post-procedure care are mandatory components of a UFE practice. Interventional radiologist must accept a number of responsibilities, including generating referrals, providing the expertise to evaluate and prepare patients for the procedures, and caring for patients as they recover from this procedures (Moss and Christies, 2016).

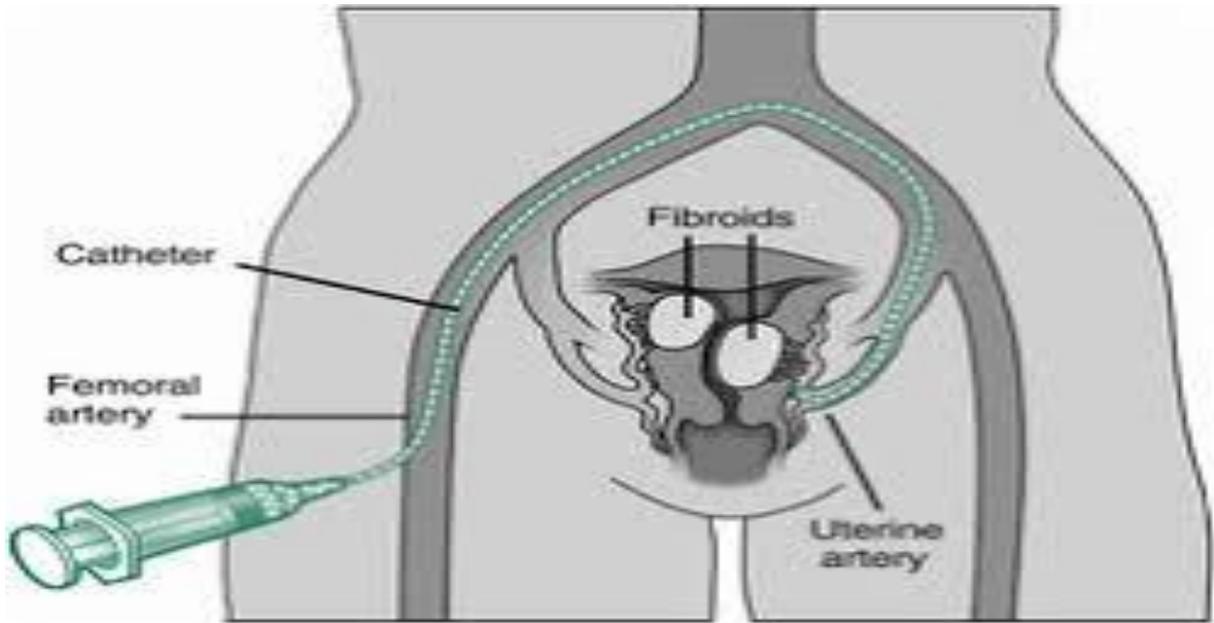


Figure (2.16) UAE procedures for fibroids (Xu et al ., 2021)

High-frequency magnetic resonance-guided focused ultrasound surgery (MRgFUS) is a type of thermal ablation in which the myoma is seen and the target is defined using MRI. Ultrasonic energy is directed to a location inside the fibroid to cause coagulation tissue necrosis in the myoma. Although damage to adjacent tissue is theoretically minimal, the possibility of a negative impact on vital nearby structures cannot be ruled out . When compared to low-intensity MRI imaging of fibroids, hyper intensity MRI pictures are related with lower treatment success (Kim et al ., 2016) .

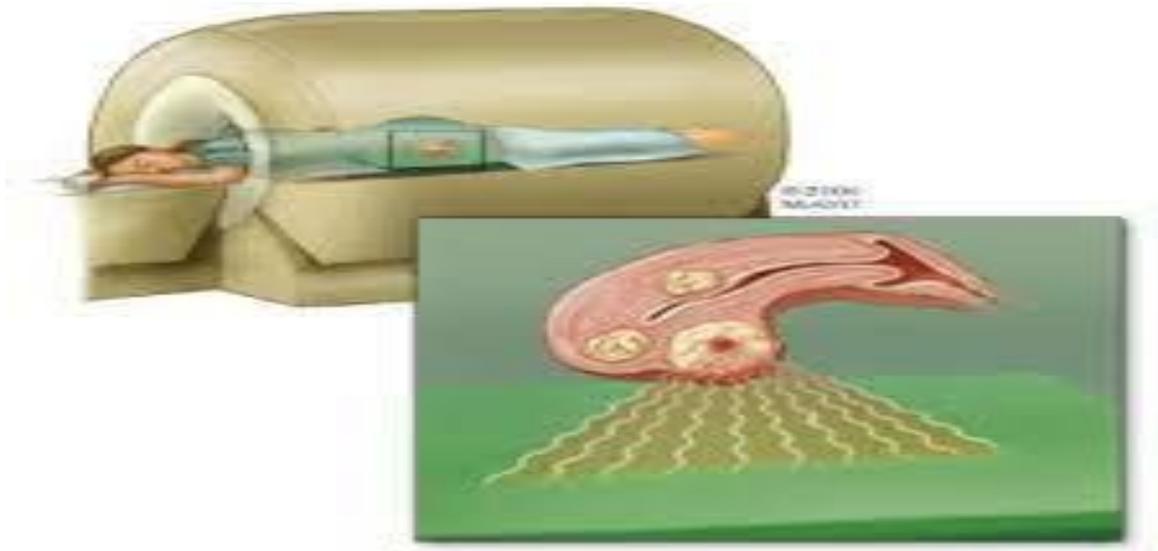


Figure (2.17) Magnetic resonance-guided focused ultrasound surgery (MRgFUS) ( Abe et al ., 2020)

### **2.10.3 Surgical Options for Fibroids**

Today's therapy options are predicated on surgical treatments, however the patient's age and desire to avoid "radical" surgery like hysterectomy influence their treatment selection. Uterine fibroids are treated differently depending on their size, quantity, and location. Nonsurgical methods include uterine artery embolization, hysteroscopy, myomectomy, and the procedures thermal ablation of uterine fibroids is performed under radiologic or ultrasound supervision . Large fibroids and severe menorrhagia necessitate surgical intervention, rather than medication treatment. Myomectomy, laser surgery, or a hysterectomy are all options for surgery to treat this condition (Lumsden et al., 2015) .

Myomectomy involves removing the fibroid alone. A myomectomy is performed via laparoscopy and hysteroscopy , through an abdominal incision or through a vaginal approach. The advantage is that only the fibroid is

removed; fertility is not jeopardized because this procedure leaves the uterine muscle walls intact. Myomectomy relieves symptoms but does not affect the underlying process; thus, fibroids grow back and further treatment will be needed in the future (Wilson, 2011) .

Despite the fact that hysteroscopic myomectomy is effective at controlling bleeding, it has been known to fail. The presence of fibroids in other areas, the combination of fibroids with adenomyosis, and the inadequate treatment of big intramural (partially submucous) myomas are also common causes of failure. Over the last 30 years, advancements in instruments and procedures have lifted hysteroscopic myomectomy to the status of a standard minimally invasive surgical procedure for submucous myomas. Small fibroids with a diameter of less than 2 cm are now routinely removed as an outpatient operation. Depending on personal experience and accessible equipment, the gynecologist can use a variety of additional treatments (Parazzini et al ., 2015) .

The operation begins firstly with the resectoscopic loop or laser fiber cutting the base of pedunculated fibroids. The fibroid is retrieved with forceps or left in place after the base of the pedicle is severed. The second option is a one-step treatment that removes all fibroids completely . The slicing technique is the most widely utilized method. The surgeon can cut the fibroids to tiny shards by passing the cutting loop over and over again. When the fasciculate fibers of the myometrium are visible, the procedure is considered complete. The third option is a two-step myomectomy (for big type 1-3 myomas as defined by the FIGO classification) (Munro et al., 2011)

After resection or ablation of the protruded portion of the myoma during first-step hysteroscopy, the residual intramural component migrates rapidly to the uterine cavity, resulting in an increase in myometrium thickness and

allowing complete and safe myoma excision during second-step hysteroscopy (Mazzon et al., 2015) .

Hysteroscopic resection is a good option for type 1 myomas since it is both effective and safe. Hysteroscopic myomectomy has been made easier because to the invention of intrauterine morcellators. The use of electro surgery increases the risk of surgical complications (perforation, hemorrhage, and fluid intravasation) and injury to the surrounding myometrium if the myoma is large (>3 cm in diameter). When myoma slices are removed during surgery, myometrium thickness rises, causing the intramural component to protrude into the uterine cavity (Casadio et al ., 2011) .

Laser surgery (or electrocauterization) involves destroying small fibroids with lasers. Laser therapy can be done using a vaginal approach or laparoscopically. The laser treatment preserves the uterus, but the process may cause scarring and adhesions, thus impairing fertility . Fibroids can return after this procedure. Controversy remains as to whether laser treatment weakens the uterine wall and thus may contribute to uterine rupture in the future (Uterine fibroids , 2012) .

A hysterectomy is the surgical removal of the uterus. After cesarean section, it is the second most frequently performed surgical procedure for women in the United States . Approximately 600,000 hysterectomies are performed annually in the United States according to Centers for Disease Control and Prevention (CDC) . The top three conditions associated with hysterectomies are fibroids, endometriosis, and uterine prolapse A hysterectomy to remove fibroids eliminates both the symptoms and the risk of recurrence, but it also terminates the woman's ability to bear children. Three types of hysterectomy surgeries are available: vaginal hysterectomy,

laparoscopically assisted vaginal hysterectomy, and abdominal hysterectomy (CDC, 2010) .

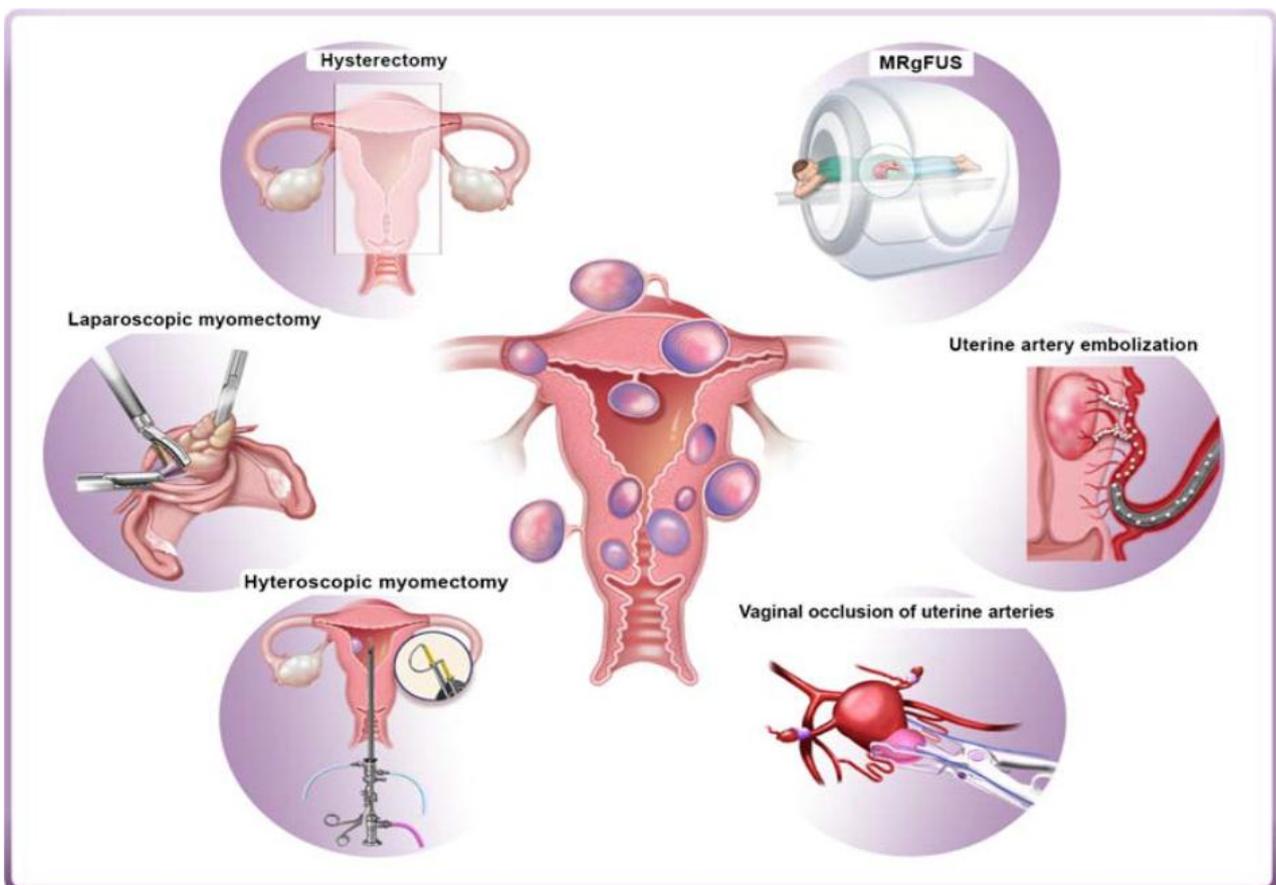
In an abdominal hysterectomy, the uterus and other pelvic organs are removed through an incision in the abdomen. This procedure allows the surgeon to visualize all pelvic organs and is typically used when a malignancy is suspected or a very large uterus is present. Disadvantages include the need for general anesthesia, a longer hospital stay and recovery period, more pain, higher cost, and a visible scar on the abdomen (Siedhoff et al., 2015).

A laparotomy incision is used to perform an abdominal hysterectomy. The laparotomy incision can be vertical or transverse, with Pfannenstiel being the most common. The skill of the surgeon, the size of the uterus, concerns about extensive pathology (e.g., endometriosis or cancer), the need for adjunct surgery during the surgery (e.g., lymph node dissection, appendectomy, omentectomy), and previous intra-abdominal scarring or surgeries all play a role in the decision to perform a laparotomy (McKenna et al ., 2014) .

In a vaginal hysterectomy, the uterus is removed through an incision in the posterior vagina. Advantages include a shorter hospital stay and recovery time and no abdominal scars. Disadvantages include a limited operating space and poor visualization of other pelvic organs. In a laparoscopically assisted vaginal hysterectomy, the uterus is removed through a laparoscope, through which structures within the abdomen and pelvis are visualized. Small incisions are made in the abdominal wall to permit the laparoscope to enter the surgical site. Advantages include a better surgical field, less pain, lower cost, and a shorter recovery time. Disadvantages include potential

injury to the bladder and the inability to remove enlarged uteruses and scar tissue (Aarts et al ., 2015) .

Hysterectomy via the vaginal route is recommended when uterine mobility (descent of the cervix and uterus toward the introitus), the bony pelvis is of proper design, the uterus is not excessively large, and no suspected adnexal illness is present. In most cases, a vaginal hysterectomy is performed to treat a benign condition such as a cyst. The advantage of vaginal surgery over abdominal surgery is that it causes less discomfort, allows for a quicker return to normal bowel function, and requires a shorter hospital stay. As a complement to vaginal hysterectomy, a unilateral or bilateral salpingoophorectomy might be carried out if the situation calls for it (Donnez et al ., 2015) .



Figure(2.18) myomas current surgical and non-surgical management procedure (Bosteels et al., 2015)

## **2.11. Complications of Uterine Fibroids and Effects on Quality of Life**

HRQOL( health related quality of life) research on women with UF symptoms have indicated that the chronic condition can cause social, physical, and mental health problems. The HRQOL of women suffering with UF is poorer than that of women suffering from similar gynecological conditions (chronic pelvic pain, severe bleeding, and urinary incontinence) . Anxiety about not being able to predict the onset of menses, the inability to control breakthrough bleeding, which causes embarrassment, the loss of control over future plans and social activities, uncertainty about treatment options that can preserve fertility, a sense of loss of control over one's overall health, and complaints of fatigue and depression are all common (Borah et al ., 2013) .

Women with uterine fibroids may have a decrease level of HRQOL and overall quality of life as a result of pain and excessive bleeding, as well as mental distress as a result of the disease's symptoms being managed . Those with UF have been demonstrated to have lower HRQOL, socially, physically, and emotionally, than women without UF. Women with UF have a detrimental influence on their total physical and emotional well-being, health, social, and functioning status (Wise et al ., 2010) .

Bleeding and pelvic pain created a strong sense of dread because of their unpredictable nature. Treatment with pharmacological drugs failed for the majority of patients, thus they were disappointed and lacked the will to try another clinical treatment. Unfairness was a common sentiment expressed by women, who couldn't figure out how to utilize their drugs appropriately and they didn't function, causing them to feel frustrated . Some studies that have shown a number of women with uterine fibroids suffer from

anxiety and fear that these fibroids will develop into cancer, as this was evident from their facial expressions and behavior when they visited the health institutions in search of clinical treatment or surgical interventions. The misunderstanding of uterine fibroids, which in turn leads to excessive fear from the patient, is one of the most important things that negatively effect on the quality of life for women in different age group (Brito et al ., 2014) .

Women with uterine leiomyoma had a negative impact in their quality of life after the symptoms had started, and treatment failure with drugs caused different negative feelings and modified coping techniques towards this ailment . bleeding and pelvic pain limited their domestic and social activities. Some women reported going to hospitals after many episodes of uterine bleeding and pelvic pain. Professional activity was also impaired by symptoms. Many women used their symptoms to justify their decision to undergo hysterectomy (Kai et al ., 2011) .

The link between uterine fibroids and human reproduction is still debated, and counseling patients can be difficult at times. This document is intended to assist individuals who work with women of reproductive age who have uterine fibroids. Fibroids' ability to interfere with fertility is largely determined by their location . Regardless of the size or existence of symptoms, submucous fibroids interfere with conception and should be removed in infertile patients. Intramural fibroids that distort the cavity diminish the chances of conception, whereas research on intramural fibroids that do not damage the cavity has yielded mixed findings. In asymptomatic, infertile patients, there is no evidence to justify the excision of subserosal fibroids in a systematic manner (Ben-Nagi et al ., 2010) .

The endometrial and myometrium blood supply may be impaired, resulting in increased uterine contractility, as well as changes to the local hormone milieu and paracrine molecular changes induced by fibroids, which could impair gamete development. Fibroids can also impair fertility by altering the local anatomy (anatomic distortion of the uterine cavity) (Galliano et al ., 2015) .

Uterine fibroids can impact negatively on all aspects of fertility, from conception to post-partum issues. Uterine fibroids are assumed to be more common among women who have had infertility problems in the past, but the frequency of fibroids in older women undergoing infertility therapy is known to be (12-25 %) . Fibroids are present in up to 27% of patients seeking reproductive assistance, and can affect fertility through cavity distortion, alteration of endometrial receptivity, and sexual function . Ulceration of the endometrium, endometrial atrophy, and distortion of the endometrial glandular tissue are some of the changes to the endometrium produced by the presence of underlying uterine fibroids that might impede embryo implantation (Rackow & Taylor, 2010) .

The potential interference of uterine fibroids with human reproduction. Major anatomical distortion caused by fibroids, particularly at cervical, fundal or tubal level, may reasonably be expected to affect fertility . Fibroids might also interfere with gametes migration, embryo transfer or embryo implantation by altering the normal uterine contractility or the endometrial blood supply . A potential mechanism of interference on embryo implantation has also been seen in local inflammation and a hostile endometrial environment (Yoshino et al ., 2010) .

Myomas are observed in about 3–12% of pregnant women and the affected the outcome of pregnancy, it has been linked to an increased risk of

spontaneous abortion, fetal malpresentation, placenta previa, preterm birth, cesarean section, and peripartum hemorrhage . Incidence of fibroids increases with maternal age at pregnancy . Fibroid less than 5 cm in diameter tend to remain stable or decrease in size and, larger fibroids (>5 cm) tend to grow during the pregnancy . The risk of adverse events in pregnancy increases with the size of the fibroid . Different complications with variable rates of incidence have been reported in pregnancy with fibroids which include postpartum hemorrhage, red degeneration, dysfunctional labor, retained placenta, and retained products of conception, intra uterine growth restriction (IUGR) (Sarwar et al ., 2012) .

Early in pregnancy, the risk of spontaneous miscarriage is significantly higher in women who have fibroids. The presence of a single fibroid does not enhance the risk of miscarriage; however, the presence of numerous fibroids may. Additionally, the location of the fibroid may be of interest to doctors. Women with uterine corpus (body) fibroids, as well as those with intramural or sub mucosal fibroids, are more likely to experience an early miscarriage. Exactly how fibroids induce spontaneous abortion is unknown. All three of these factors have been linked to increased uterine irritability and contraction as well as fibroids' compressive effect on the developing placenta and fetus. The likelihood of bleeding is directly related to the fibroid's location. When the placenta implants close to the fibroid, bleeding in early pregnancy is substantially more prevalent than when the placenta does not come into touch with the fibroid at any point during the pregnancy (Lee et al ., 2010) .

The most common complication of late-term pregnancy is placental abruption. Placental abruption is associated with a variety of conditions, including sub mucosal fibroids, retroplacental fibroids, and fibroid volumes

greater than 200 cm<sup>3</sup>. Reduced blood flow to the fibroids and nearby tissues may cause partial ischemia and decidua necrosis in the placental tissues above the leiomyoma, which could be one cause of placental abruption. Placenta previa was also a prevalent condition, and the presence of fibroids during pregnancy was related with a 2-fold greater incidence of placenta previa even after controlling for prior procedures such as cesarean sections or myomectomy (Ezzedine et al ., 2016) .

## **2.12. Nursing Management of Uterine Fibroids**

Nursing management of fibroids involves explaining the condition and the rationale for removal and giving follow-up care instructions . The nurse also assists the health care provider with the removal procedure . The level of support that nurses may provide to women with fibroids is determined by the type of treatment that is available and the treatment that she chooses. Nurses should be prepared to discuss any current treatment choices as well as the consequences of a fibroids diagnosis . Many women are unfamiliar with fibroids and require reassurance that they are both common and harmless . If medication is recommended, it is critical to explain the potential adverse effects as well as why the prescription can only be taken for a short period of time . If surgery is chosen, verbal and written information about the procedure as well as post-operative care should be provided (Hampton , 2014) .

Myoma of the uterus can be treated with both drug therapy and surgery in contemporary clinical practice. Two therapies are not enough to completely cure uterine myoma, thus an effective way of nursing is still required to improve therapeutic outcomes. In order to provide a comprehensive nursing care to patients, the clinical nursing pathway (CNP) calls for collaboration amongst a variety of medical professionals and

extends throughout the course of treatment, recovery, and postoperative rehabilitation . Comfortable nursing is a type of specialized nursing care that helps patients achieve psychological and physiological comfort . The use of comfortable nursing in the treatment of uterine fibroid can significantly improve the therapeutic effect and is crucial to rehabilitation. As a result, the focus of this research is on the influence of comfortable breastfeeding in the treatment of uterine myoma (Shuangping , 2015)

The Clinical Nurse Pathway (CNP) is a modern nursing management approach that originated in the United States. With the patient as the nursing center, time as the horizontal axis, and specific nursing measurements as the vertical axis, it generates patient-specific nursing concepts and tactics based on the patients' actual state. It plays a constructive directing function in nurses' nursing practice as a standardized nursing model. CNP is known for its great efficiency, outstanding quality, and inexpensive cost. CNP has been increasingly used in clinical nursing in recent years, as patient demand for nursing quality has increased. Clinical nursing practice is evolving, with nursing mode being established and enhanced on a regular basis. In such nursing mode, a more scientific and flawless clinical system has emerged, providing a positive stimulant to the advancement of clinical nursing quality (Jing , 2015) .

The clinical nursing pathway is increasingly being used in surgical nursing of patients with uterine fibroid, and a generally optimal nursing result has been achieved. With good results, a clinical nursing pathway was used in uterine fibroid surgery. A clinical nursing pathway is employed in patients undergoing laparoscopic surgery to remove a uterine fibroid. As a result of the study, patients' hospital stays, hospitalization costs, disease knowledge mastery, and nurse satisfaction all increased considerably. Furthermore, medical professionals must strictly adhere to nursing route

planning and modification in terms of time, manner, content, and other factors while adopting this nursing mode, not only to fulfill patients' illness cognition demands, but also to increase the health education effect. At the same time, it reduced the workload of medical professionals and prevented nursing task omissions (Dianpeng , 2014) .

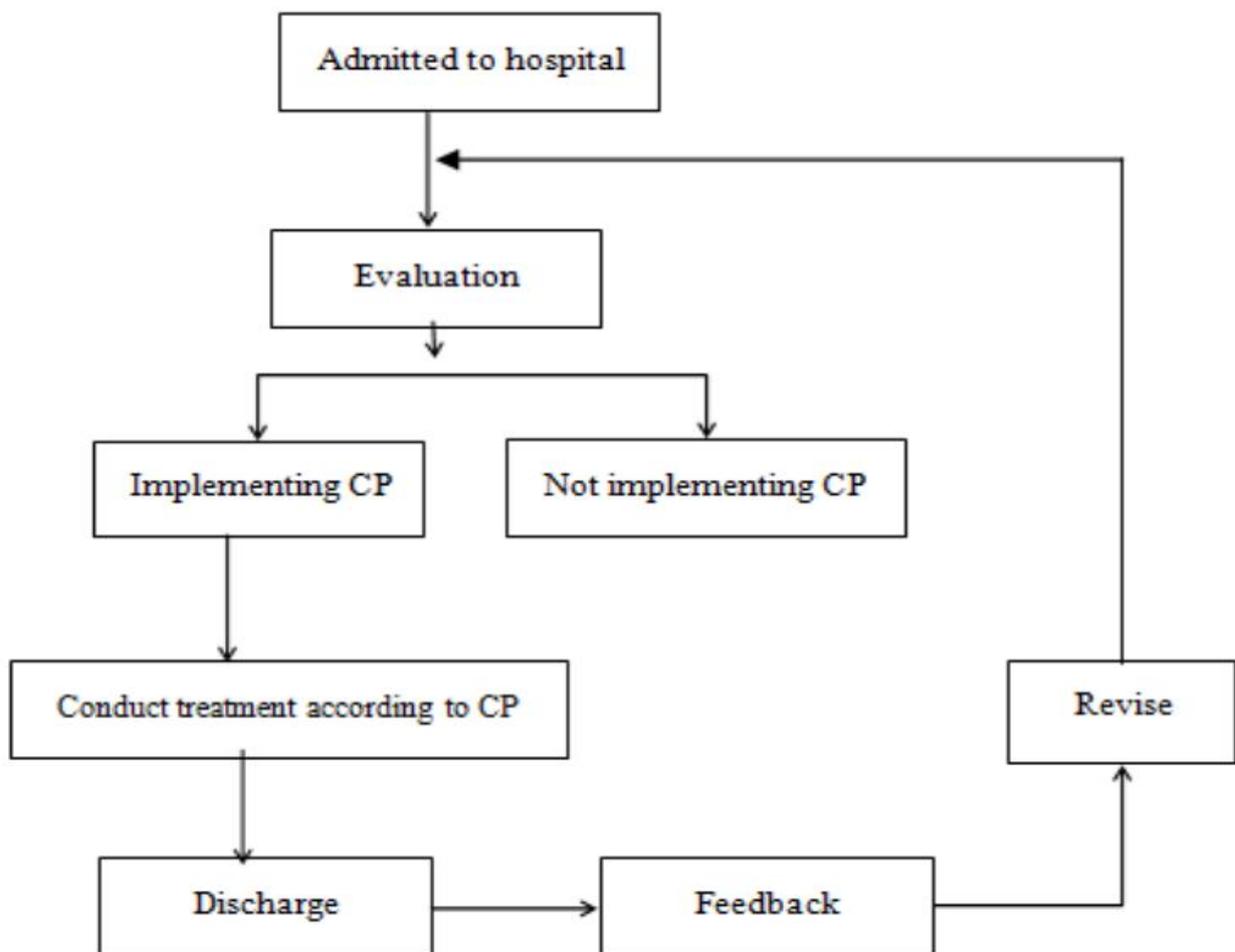


Figure ( 2.19)The flow chart of clinical nursing pathway (Qiuxia, 2014) .

A clinical nursing pathway implemented for patients having uterine fibroid surgery led to better nurse-patient engagement and less wasteful use of medical resources. Uterine fibroids patients can reduce their postoperative pain, avoid postoperative problems, reduce their length of stay in a hospital and alleviate stress by using the clinical nursing approach. CP should be

taught to all hospital medical staff, including the essential content, application, and evaluation criteria. All hospital medical staff should be taught in CP including fundamental content, implementation, and evaluation criteria before CNP is performed (Jinfang , 2015) .

The alteration of vital signs should be monitored closely during the surgery. The operational incision, bleeding status, and changes in vital signs should all be monitored after the procedure, and the wound and catheter should be carefully nursed. After the patient's awareness has fully restored, the medical team should first inform the patient of the operation's success, and then provide the patient a mental nurse. Following the operation, the patient's pain should be properly assessed, and a focused pain nursing therapy should be implemented (Qingqing , 2015) .

Rehabilitation training will be provided . On the assumption that pain is greatly reduced, the patient is instructed to move her limbs and engage in some off-bed activity. Meanwhile, the patient's gastrointestinal motility should be evaluated, and the patient will be advised on the proper dietary pattern. On the day of discharge, medical personnel should assist the patient with the check-out process and provide detailed instructions on diet, rest, exercise, and drug dosage. Regular re-examinations are required. In addition, follow-up clinics are essential for any discomfort. Following the completion of nursing, the patient's comfort indices will be evaluated using the comfort scale. On the comfort scale, the hospital environment, preoperative anxiety, post-surgery pain, and mental and excretory state are all considerations. It will also be noted if there are any complications following the surgery, such as respiratory or urinary tract infections, deep vein thrombosis, or a blocked digestive tract (Jiejing , 2013) .

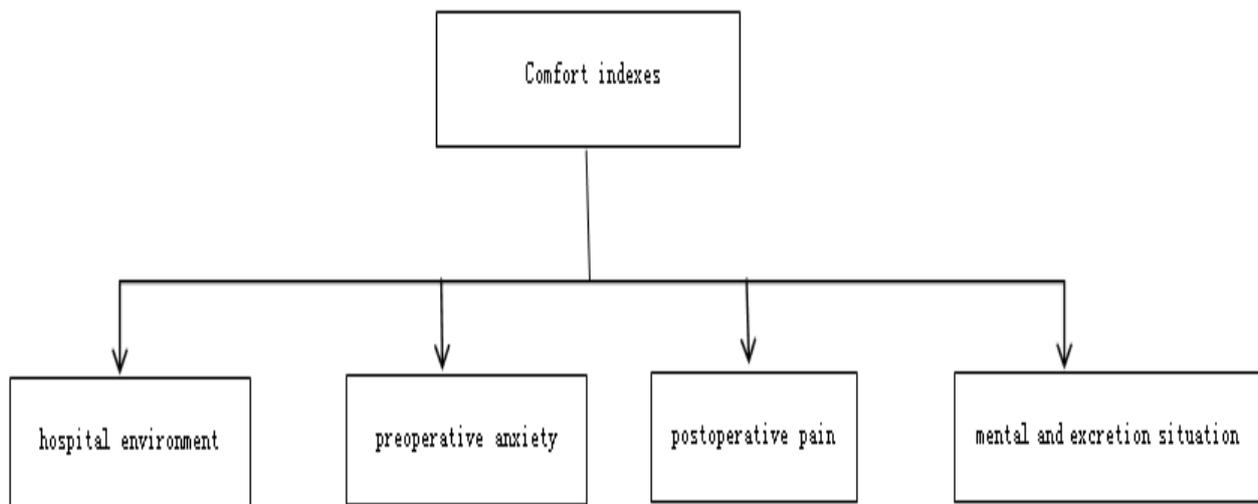


Figure (2.20) Evaluation of comfort indexes (Shuqin , 2013) .

Nursing assessment for the woman with uterine fibroids includes a thorough health history, physical examination, and laboratory and diagnostic studies. The history should include questions about the woman's menstrual cycle, including alterations in the menstrual pattern (e.g., pain or pressure, aggravating and alleviating factors), history of infertility, and any history of spontaneous abortion, which might indicate a space-occupying uterine lesion. Ask if any female relatives have had fibroids, because there is a familial predisposition. Assess for clinical manifestations of uterine fibroids. Symptoms of fibroids depend on their size and location and may include ( chronic pelvic pain, low back pain, iron-deficiency anemia secondary to bleeding, bloating, constipation, infertility, dysmenorrhea, miscarriage, sciatica, dyspareunia, urinary frequency, urgency, incontinence, irregular vaginal bleeding (menorrhagia) and feeling of heaviness in the pelvic region (Susilo et al ., 2013) .

Physical examination and laboratory and diagnostic studies The bimanual examination performed by the health care provider typically shows an enlarged, irregular uterus. The uterus may be palpable abdominally if the

fibroid is very large. Ultrasound may be used to confirm the diagnosis (Lumsden , 2010) .

Nurses have an important role in caring patients before, during, and after surgery. Body image, lack of preparation, and a lack of financial and social support can all be barriers to a successful recovery. Nurses should intervene responsibly and act as educators to ensure that patients are aware of the entire process in order to alleviate doubts, minimize anxiety, and address critical issues (Gibson and Stephens , 2013) .

The importance of pre-operative instruction cannot be overstated in the healthcare industry . The surgical technique and accompanying care must be explained to the public in a way that is understandable to the general public . The role of nurses is to educate patients on the many parts of surgical procedures. Women having hysterectomy need these specialists to improve their knowledge and skills in teaching and advising them so that they can quickly regain their health. There should be possibilities to develop academics in planning and conducting, as well as in education and advising persons for better health (Sousa, 2011) .

Preoperative care involves informing the client and her family about the surgery and its aftercare, as well as giving interventions to alleviate anxiety and fear of change ( body image, complications, and pain) preparing the woman for any perioperative expectations, outlining the postoperative pain management measures that will be performed, and identifying high-risk women early to limit the risk of complications and suffering The removal of the uterus may cause grief for some women who link their femaleness with their ability to reproduce. To allow for rest, complete all preoperative instructions as soon as possible (Spies, 2011) .

### **2.13. Post-Operative Nursing Care and Discharge Instructions**

Patients recovering from surgery in (Post-operative period), especially those who have only spent a brief time in the hospital, have unique informational requirements. Discharge education and training are critical to the success of day surgery because the patient and their caregivers are soon responsible for their own care. Following surgery, patients must learn how to care for themselves, including how to keep their wounds clean, how to manage discomfort, and how to report any issues that may arise . The following items are included in post-operative care: Provide comfort measures, promptly administer analgesics, administer antiemetic to reduce nausea and vomiting as directed, wash the client's linens and gown periodically to improve hygiene, alter the client's position frequently and utilize pillows for support to encourage comfort and pain management, Examine the incision, dressing, and vaginal bleeding, and report any excessive bleeding. To avoid constipation and diarrhea, monitor elimination and provide more fluids and fiber, as well as assess the incision, dressing, and vaginal bleeding and report it (Lassen et al ., 2012) .

Encourage that the client reduces her activity level in order to minimize weariness, which can stifle healing . Advise the client to take it easy when she's fatigued and gradually raise her activity level . Educate the client on the importance of 6 weeks of pelvic rest (nothing in the vaginal canal) . To avoid an increase in intra-abdominal pressure, which could compromise her sutures, instruct the client to avoid heavy lifting or straining for roughly 6 weeks . Teach the client how to recognize infection signs and symptoms . To limit the chance of infection, advise the woman to use showers rather than tub baths. Encourage the client to consume more fluids and eat a balanced diet to avoid dehydration and fluid and electrolyte imbalance . To avoid

infection, remind the client to change her perineal pad on a regular basis . As needed, explain and schedule follow-up care sessions . Provide information on local resources for support and assistance (Lee & Steve, 2016) .

Post-operative morbidity after day surgery has been well documented in numerous studies, but the attention has largely been on the intensity and duration of pain. The patient and/or family is now fully responsible for the recovery time, making pain management an essential concern during short stays. Post-operative discomfort was the most common reason for a patient's first contact with a hospital or primary care physician in the first 48 hours following surgery. During the first week following ambulatory surgery, pain management and patient interviews were conducted multiple times. Approximately 20% of patients had analgesic adverse effects in the first 24 hours of treatment. Some patients complained that they were not given appropriate information regarding the risks of analgesic use, such as inadequate pain relief or negative side effects, before they were discharged. Outpatient surgery patients must be better informed about pain management (Gauta , 2011) .

In order to provide successful pain management, nurses must ensure that patients receive an accurate assessment of their pain prior to discharge, as well as enough verbal and written advice about how to properly administer drugs recommended for them to take at home. Following day-case surgery, post-operative pain is prevalent, and administering analgesics with clear instructions to the patient is critical. Patients' confidence in home analgesia and acceptance of day surgery would improve if they were given an information pamphlet. Gynecological surgery, in particular, has been linked to increased levels of discomfort, and pain management can be a significant issue during recuperation at home. Discharge education must include a pain

management strategy as well as information about possible analgesic side effect (Gien et al ., 2011) .

The dissemination of information (decrease level of knowledge) looks to be a significant barrier for day surgery. While not all patients require the same quantity of information or instructions, the literature indicates that day surgery patients want greater information regarding their projected recovery. It is also clear that nurses can contribute significantly by providing discharge information, which is important to the success of brief hospitalizations. The necessity of having education and teaching strategies, especially for people suffering short hospitalizations, is demonstrated by findings from the literature (Heaton & Walid ,2010) .

Standardized care plans will assist in ensuring that all patients receive the same level of care and training. Patients and their families who are released early following a hysterectomy should be trained on self-care, pain management, and how to seek help if issues arise. The process of preparing patients for release and rehabilitation at home should be enhanced to decrease difficulties and readmissions (Kisic-Trope et al ., 2011) .

Patients' subjective assessment of their care satisfaction, which is based on both cognitive and emotional responses to many parts of their treatment. Patients who are satisfied with their nursing care are more likely to remain with their therapy, resulting in better outcomes. Patient satisfaction has become a regularly used metric of healthcare quality. In general practice, patient satisfaction has been demonstrated to influence future behavior, such as patient adherence to advice or the chance of clients seeking out a new physician. Patient satisfaction with nursing care is viewed as a critical measure of high-quality care because of its impact on health outcomes (Shirley& Sanders, 2013) .

Quality improvement in health care organizations is also a key indicator of patient satisfaction, and the quality of nursing care provided to these patients is a measure of organizational effectiveness. When it comes to healthcare, nurses are responsible for ensuring that patients are satisfied, which necessitates an evaluation of their services and a determination of how well an organization is delivering healthcare. Measuring patient satisfaction is a good way to do this. The use of discharge instructions was one of the factors that affected clinical outcomes related to patient satisfaction (Morris, 2012).

The transition's conclusion involve teaching patients how to manage their health transitions and engage fully in self-care during their home recovery is one of nursing's responsibilities. Nurses can help people achieve an early mastery of self-care skills that support optimal health and play an important role in the rehabilitation process. Orem defined self-care as "the practice of actions that individuals start and carry out on their own behalf in order to support their own life, health, and well-being," according to Orem. A deficit develops when a patient is unable to meet the demands of self-care due to a change in health, necessitating nursing care. Patient-nurse interactions that foster self-care will hasten recovery and improve patient satisfaction after surgery. Patients may build confidence and bridge the gap to self-care mastery if they have information during the healing process. (Riegel et al ., 2012) .

Self-care mastery depends on a variety of factors, including the quality, quantity, and consistency of patient education. Education in this area has a limited impact on patients' ability to care for themselves following brief hospitalizations. Post-operative self-care confidence and overall satisfaction with care have not been proven to be linked. Consequently, knowing how

nursing variables like post-discharge education affect self-care confidence is essential (Rettenmaier et al ., 2012) .

Post-operative recovery is characterized as an energy-intensive process of reestablishing normalcy and wholeness in everyday living activities as well as psychological well-being. As a result, the stated level of recovery of the patients can be utilized to quantify their transition experience and sense of well-being. Patients spend the majority of their recovery time at home after being released on the same day as surgery. The patient is responsible for keeping track of their own health and assessing signs and symptoms. During this time, the patient's sense of well-being may be compromised. Possessing a sense of well-being during rehabilitation can signal the beginning of a positive transformation (Berg et al ., 2011) .

Nurses play an important role in encouraging patients in planning for their recovery experience. Allowing patients who have had short-stay surgery to create ways for monitoring their health condition is likely to increase their ability to manage post-operative symptoms and resume normal activities as soon as they return home. This can be accomplished by notifying patients ahead of time. Clients can strive toward a perceived level of surgical recovery and personal well-being when they have increased patient awareness through the provision of complete discharge instructions ( Berg et al ., 2013)

Nurses must accurately identify ways to address patients' informational needs prior to discharge, especially for those having brief hospitalizations. The use of a prescribed comprehensive educational plan and the development of instructional resources can help with this process. Because patients are discharged so quickly after day surgery, having a clear discharge protocol and education plan can help to increase patient satisfaction and

overall care quality. It is theorized that establishing a consistent and comprehensive education plan can help patients be safely released and recover at home after hysterectomy procedures (Berg et al ., 2010) .

### **2.14. Knowledge and Practices of Nurse Regarding Fibroids Surgery**

Knowledge enhancement is required for the implementation of targeted and effective practices in order to provide scientifically based nursing care during promotion, maintenance, and fibroids surgery. These actions include well-developed actions in assessment, teaching, counseling, communication, collaboration, knowledge of health behaviors, trading systems, and having specific knowledge of the conditions of various patient problems (Mathew , 2011) .

Pre-and post-operative care of patients, accompanied by a surgeon during surgery, and the preparation of tools prior to and following surgery are critical roles for nurses to play in the treatment team. When nurses are well-versed in the procedure's process and tools, they can be an asset. The role of the nurse in preoperative work, patient education, in-patient preparation, patient accompaniment, and the provision of instruments before and after surgery is critical. It becomes increasingly critical when the patient's inability to take action and endurance deteriorates (Erian et al ., 2017) .

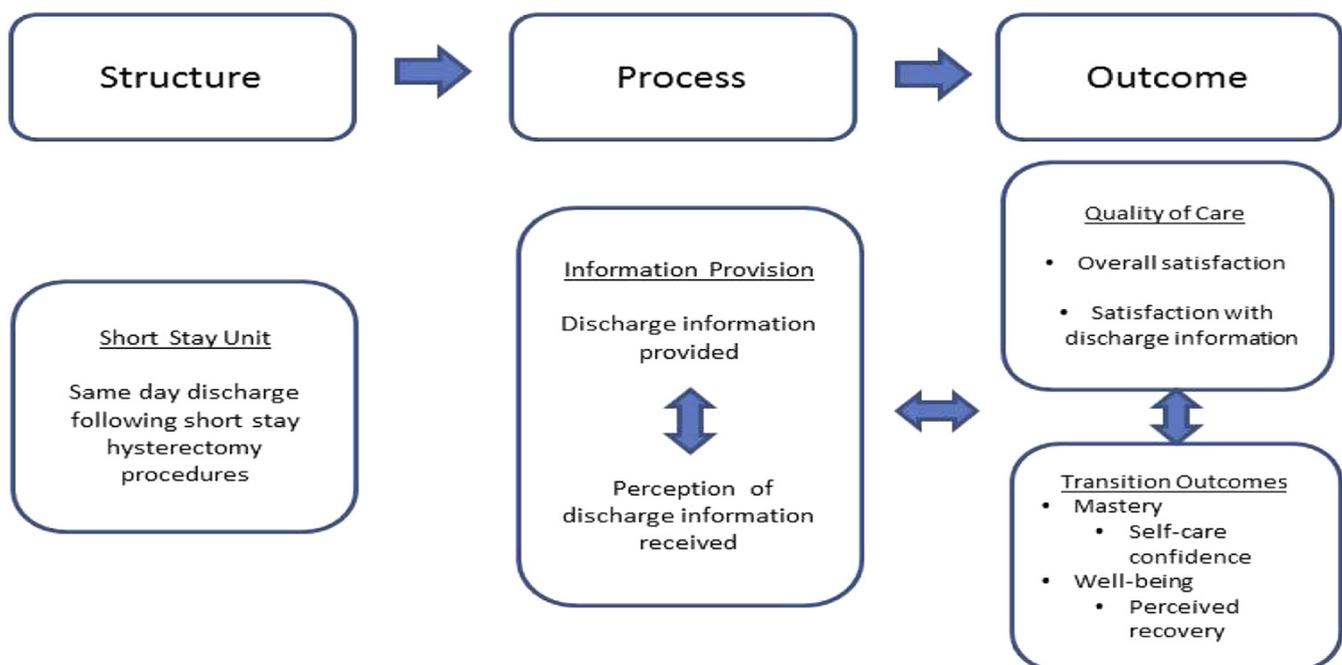
Healthcare facilities can utilize clinical management procedures and standardized tools to make sure patients receive timely and adequate treatment and are released at the end of their stay. Outpatient or short-stay vaginal and/or laparoscopic hysterectomies are becoming more common, and a consistent post-operative education plan will ensure that every patient

receives the same instructions and information to improve their self-care knowledge and maybe reduce stress (Perron-Burdick et al ., 2011) .

Humanized nursing is a modern patient-centered nursing model that promotes empathy and compassion for others. It is a clinical nursing model that is successful, holistic, individual, and creative, and it is increasingly replacing the old disease-centered nursing model in clinical nursing settings. According to the findings of the studies, high-quality humanized nursing can minimize the occurrence of problems while simultaneously improving patient satisfaction. As opposed to the traditional biology model, humanized nursing is an approach that incorporates aspects of the biological, psychological, and social domains. Patients' psychological well-being is an important consideration in humanized nursing, which goes beyond only relieving their physical symptoms and providing their physical needs. Moreover, it fulfills both the needs of healing disease and preserving human dignity. Patient assessment by the nurse must be comprehensive in order to develop rehabilitation programs that take into account all aspects of the patient's health, including counseling for mental health and other factors. In order to better understand the art of communication, nurses will necessarily need a broad variety of information, including psychology, ethics, humanities, and other specialized knowledge. Because of its effectiveness in alleviating and eliminating unpleasant perioperative emotions and stress and thus enhancing their postoperative quality of life, the implementation of a humanized nursing model should be promoted in the care of patients who undergo UAE for uterine fibroids. As a result, patients report higher levels of pleasure and experience fewer side effects, indicating that it is a safe procedure (Cai et al ., 2021) .

## 2.15. Conceptual Framework

The Quality of Care Model and the Nursing Model of Transition served as guiding frameworks for this study. It assesses the quality of health-care services based on expected changes in health status as a result of the service. Quality improvement and health-care research communities have embraced the structure, process, and result paradigm. The model depicts how organizational structure affects care procedures, which in turn affects care outcomes like patient health. Structure measurements include the professional and organizational aspects of providing care, such as facility operations. Process refers to the exchange of actions inside and between health care practitioners and patients. Other clinical results, increases in knowledge, functional well-being, and patient pleasure with treatment are examples of outcomes (Zakaria & Levy, 2012) .



Figure(2.15 )The framework based on the Quality of Care Model and the Nursing Model of Transitions (Engh & Hauso, 2012) .

The term "transition" refers to a shift or passage from one state, condition, or location to another. A shift in routine, emotional turmoil, and adjustment may be required. The Nursing Model of Transitions describes developmental (e.g., menopause), situational (e.g., a move to a nursing home), organizational (e.g., health care reorganization), and health/illness transitions (Merchant et al ., 2012).

## **2.16. Previous Studies**

### **2.16.1 First Study**

A study carried out by (DeJesus et al ., 2016) Titled : "Importance of Postoperative Care and Discharge Instructions in Patients Undergoing a Uterine Fibroid Embolization" conducted at University of Miami Hospital & Clinics/Sylvester Cancer Center . The study aim to focused on the basic principles of nursing care and the most important points that the nurses should applied during providing health care to hospitalized patients. On the other hand, the study provided a brief explanation about the importance of the discharge instructions that the nurses team must provide to patients before they leave the hospital. A sample was nurses that provide nursing care postoperatively and discharge instructions .

The study conclude the need for a good patient selection, consultation, list of care, and proper education will provide decreased rates of future hurdles. Although there have been few large and long-term studies investigating the efficacy of UAE for fibroid management, it is known that compared with hysterectomy, UAE offers quicker recovery time, reduced hospital stay, and fewer complications during surgery but lower rates of symptomatic relief.

**2.16.2 Second Study**

Second study conducted by (Zheng et al., 2021) in Tongde Hospital of Zhejiang Province, Department of Gynecology, in China entitled

Titled: " Tailored Post-Operative Nursing Care in a Patient with Progressive Muscular Dystrophy Complicated with a Giant Uterine Leiomyoma"

This study aim to focused on customized postoperative nursing care of a patient with progressive muscular dystrophy with giant uterine leiomyomas. Case study design involves only one patient suffer from muscular problems related to large size uterine fibroid .

The study concludes The post-operative nursing care dramatically improved the patient's condition after 16 days of hospitalization, and the patient was discharged from the hospital with a high degree of satisfaction.

**2.16.3 Third Study**

The third conducted by (Lynch &LeFort, 2016) in Memorial University of Newfoundland, Canada .Titled "Standardized discharge information after short-stay hysterectomy and relationships with self-care confidence, perceived recovery, and satisfaction .

The aim of this study is to report on an evaluation of this standardized approach to nurse-delivered discharge information through an exploration of the relationships among discharge information, self-care confidence, women's perceptions of their early recovery at home, and satisfaction with same-day gynecology surgery.

a descriptive, correlational design with a review of the medical record and a telephone interview conducted 48 to 72 hours after same day discharge

from hospital after hysterectomy surgery. 51 women with hysterectomy who are participated in this study as a sample of study in in southwestern Ontario, Canada.

The result of this study according to the findings of this study, 51 % women reported high levels of self-care confidence and varying levels of perceived recovery (48 - 72) hours after surgery.

The study concludes that women who had a short-stay hysterectomy treatment were very satisfied with their hospital experience and the discharge information supplied by nurses. These are significant indications of care quality. The provision of standardized discharge information was found to be substantially associated with patient self-care confidence and perceived home recovery. Our findings revealed the significance of providing adequate information to fulfill women's postsurgical requirements and identified areas where information provision may be enhanced. Although our findings cannot be generalized, we report a quality improvement study that has not previously been conducted with women undergoing short-stay hysterectomy surgeries and offer the possibility for further research .

#### **2.16. 4 Fourth Study**

The fourth study conducted by (Dixon, 2014) at University of Texas School of Public Health as Doctoral dissertation. Entitled "Evaluation of current knowledge and education practices regarding uterine fibroids among black women"

This aim of this study is to evaluate the knowledge and educational practices of black women with uterine fibroids that influence beliefs, norms, and attitudes regarding appropriate decision-making about their health problems.

The study carried out on group of black women to obtain their norms, attitudes, beliefs' and decisional regret toward uterine fibroids and therapy by using a questionnaire form constructed by researcher after review past literature which correlated with this aspect.

The results in this study showed that women differed in their attitudes and beliefs regarding the methods of treating uterine fibroids. Women who had children showed acceptance of their health condition and had no regrets about the treatment options. Many women did not regret that they already had children. Regret was expressed for women who went through early menopause or had problems due to hysterectomy.

The study concluded that women are unable to separate facts from opinions regarding prevention and treatment. The study also proved that family and religion do not contribute to making treatment decisions.

#### **2.16.5 Fifth study**

The fifth study conducted by (Xin &Jianxin,2017) at School of Medicine, Pingdingshan University, Pingdingshan, PR China . Entitled " The effect of comfortable nursing in clinical nursing pathway for patients with hysteromyomectomy"

The aim of this study is to observe and analyze the effect of comfortable nursing in clinical nursing pathway for patients having hysteromyomectomy.

The study carried out on patients with uterine fibroids were chosen as research subjects and were subjected to laparoscopic surgery treatment and comfortable nursing. The comfort scale was used to assess the comfort indices before and after comfortable nursing .

The findings of this study revealed that by comparing comfort indexes (hospital environment, preoperative anxiety, post-operative pain, mentality, and excretion), the results after comfortable nursing were significantly superior to those before comfortable nursing; additionally, the incidence rate of postoperative complications after comfortable nursing was only 3.33 percent (2/60) .

The study concluded that following comfort nursing, the comfort indexes of patients with uterine fibroid were significantly improved, and the occurrence rate of postoperative complications was also reduced. As a result, pleasant nursing has a high applicability value.

# ***Chapter Three***

## ***Methodology***

## **Chapter Three**

### **Methodology**

Scientific research methodology is a set of specific scientific standards, criterion and controls that are followed during the work of scientific research. Therefore, scientific research methodology is one of the important matters on which it builds and organizes good scientific research. One of the most important controls of scientific research is that it be organized and accurate, so that everyone who reads it and looks at its lines benefits from it, and therefore we should address the various scientific research methods that the researcher can use during the work of a well-structured scientific research. In this chapter, the study design and all other scientific steps that were followed by the researcher from the beginning of the study until its completion will be covered.

#### **3.1. The design of the study**

Quantitative research, is descriptive cross-sectional design studies are a scientific procedure for gathering and analyzing the outcomes of a research problem and attempt to provide a solution for research problem (Ranganathan & Aggarwal, 2018). This descriptive cross sectional study was started from (21<sup>st</sup> September 2020 to 31 March 2022), and conducted at Babylon governorate in order to evaluate the practices of nurses in maternal surgical wards in regard to post-operative nursing care for patient undergoing uterine fibroids surgery and their knowledge related to appropriate discharge instructions for those patients by using a questionnaire form adopted for this purpose in five hospitals at Babylon governorate.

The cross-sectional study design is one of the types of descriptive study that is commonly used by researchers. During the application of a cross-sectional study, the researcher aims to describe and define the problem of the study by selecting a sample from the community in which the study is scheduled to be conducted during the same period. The sample that participates in the cross-sectional study is selected, based on the inclusion and exclusion criteria that are set by the researcher to achieve the objectives of the study and the purpose for which the study was conducted. This type of studies is considered inexpensive from a financial point of view, in addition to being quick to implement and does not require a long time to conduct, so this study is always adopted during the conduct of demographic opinion polls for a particular region or a community, evaluating the spread of epidemics and diseases in a particular environment and clarifying opinions, attitudes and knowledge A group of people in a certain area on a topic (Setia, 2016).

During this study, the researcher is present in the women's surgery wards to observe the nurses' practices regarding the postoperative nursing care of patients undergoing to uterine fibroids surgery by using a questionnaire prepared for this purpose and adopted as a study tool after reviewed from number of experts and use observational checklist in fill of the questionnaire domains. As well as, in the second part of questionnaire the researcher identify the knowledge of nurses related to discharge instructions of the same patients depend on the self-report method in fill the questionnaire.

### **3.2. Administrative Approvals**

Before starting the study, the investigator shared the idea with the supervisor, take in considerations the needs of the Ministry of Health for such vital study as well as the interest of the investigator.

1. A Seminar session was held at Babylon University / College of Nursing in 20 September, 2020 to present the title that is chosen for this study and the objectives that were formulated to achieve the purpose of it.
2. The approval of the study was obtained .
3. The scientific protocol for the study and the papers forms concerned with the ethics of scientific research and the pledges that officially adopted by the scientific research ethics committee at the College of Nursing / Babylon University were completed.
4. The researcher submitted a request to the Postgraduate Studies Committee at the College of Nursing for the purpose of addressing the Babylon Health Directorate - Training and Human Development Center to grant approval to conduct the study in the five hospitals that were chosen as the place for conducting the study.
5. In 19 April, 2021, the investigator obtained the approval to carry out the study in the hospitals that were determined as a place to conduct the research (Imam Al-Sadiq Teaching Hospital, Al-Hilla Teaching Hospital, Babel Teaching Hospital for Maternal and Children, Al-Hashmiyah General Hospital and Al-Zahra Hospital) by the Training and Human Development Center in the Babylon Health Directorate appendix ( 3 ).

### **3.3. Ethical Considerations**

Ethical obligations are one of the most important process that the investigator must follow when doing the study. Before the starting of collect the data from the community that has been identified for the study, the researcher should clarify the main purpose and desired goal of conducting this study for the sample to be including in the study, as well as adhere to the strict confidentiality of the data taken from the study sample and pledge to use it for scientific purposes related to the study only.

Before the starting of gathering the data from the sample who are participating in the study, the researcher given a brief explanation about the scientific background of the research and the purpose of conducting it and what is the role of the nurses who participate in this study, to give them a complete and clear idea about the study to be carried out. On the other hand, the researcher emphasized that all nurses who are participating in the study had the right to stop being part of and they can withdraw from this study in the event that they feel uncomfortable or annoyed with some of the items in the questionnaire that was prepared as a research tool, the researcher's method of collecting data or anything else.

### **3.4. Setting of the Study**

This study was conducted in Babylon Governorate after obtaining the official approval for that from the Babylon Health Department / Training and Human Development Center in five hospitals distributed in different area of the province. The hospitals that have been accredited as a place to conduct the study are (Imam Al-Sadiq Teaching Hospital, Al-Hilla General Teaching Hospital, Babylon Teaching Hospital for Maternal and Children) in the city of Al-Hilla, the center of Babylon Governorate, Al-Hashmiyah

General Hospital in the south of Babil Governorate and Al-Zahra Hospital in the city of Al-Musayyib in the north of Babylon Governorate. All hospitals in which the study was conducted have special departments for maternal surgeries in which uterine fibroids are removed.

Table (3.1) Details of Maternal departments (surgical wards) in Babylon Hospitals

<b>Maternal Teaching Hospitals</b>	<b>Department that Selected in the Hospital</b>	<b>Working Shift</b>
1- Imam Al-Sadiq Teaching Hospital	Maternity surgical wards	Morning and evening shift
2- Al-Hilla General Teaching Hospital		
3- Babel Teaching Hospital for Maternity and Children		
4- Al-Hashmiyah General Hospital		
5- Al-Zahra Hospital		

### **3.5 .The Sample of Study**

A non-probability purposive sample consists of ( 117 ) female nurses have been chosen from five maternal surgical wards in the five hospitals at Babylon governorate (Imam Al-Sadiq Teaching Hospital, Al-Hilla General Teaching Hospital, Babil Teaching Hospital for Maternity and Children, Al-Hashmiyah General Hospital and Al-Zahra Hospital). The investigator collected the data from study sample (the nurses who work in the maternal surgery wards) in the hospitals that were chosen as the place to do this study. The number of nurses who were selected to participate in the study is (117) while the total number of nurses who work in the maternal surgery wards is (167).

The numbers of nurses were selected for pilot study was (15) and they excluded from current sample. The data collection was started from the sample participating in the study (the nurses who work in the women's surgery wards) from the time period (12 May, 2021 to 26 December 2021). Details which related to the hospitals that were selected as the location for the study are shown in the table below

Table (3.2) Distribution of the Study Sample according to their hospitals (surgical wards) in Babylon Hospitals

No	Name of Hospital	Number of Nurses in the maternal wards		Total
		Morning	Night	
1	Imam Al-Sadiq Teaching Hospital	Morning	Night	31
		19	12	
2	Al-Hilla General Teaching Hospital	Morning	Night	38
		18	20	
3	Babel Teaching Hospital for Maternity and Children	Morning	Night	32
		14	18	
4	Al-Hashmiyah General Hospital	Morning	Night	33
		19	14	
5	Al-Zahra Hospital	Morning	Night	33
		17	16	
Total		167		

**The inclusion criteria that were followed in selecting the study sample:**

- 1- Midwives nurses who had experience in working in maternal surgical ward for more than 1 year
- 2- All female nurses (midwives) who are working in maternal surgical wards at hospitals which selected for study doing at Babylon governorate.
- 3- Midwives nurses in (Maternal surgical wards) who agree to participate in the study.
- 4- Nurses who are present in the maternal surgical wards during the time of data gathering.

The exclusion criteria include the following:

- 1- Nurses who are occupying administrative positions in the maternal surgical wards
- 2- The nurses who work in the maternal surgical wards but a job service is less than one year.
- 3- The nurses who are working in the maternal surgical wards but they had leaves for any reasons .
- 4- Nurses who are participated in the pilot study.
- 5- Other health specialties who are work in the field of nursing.

### **3.6. Instrument of Study**

The data collected from the sample of study by questionnaire form through two methods :

- Self-report method to obtain the information about the knowledge of nurses regarding discharge instructions for patient with uterine fibroid surgery .
- Direct observation using checklist designed by the researcher to evaluate the practical skills of nurses regarding care of patients' of first hours post operatively.

The questionnaire that was adopted as a tool for this study was designed by the researcher and supervisor based on the previous literature (Chow et al., 2013) and observational checklist (Stewart et al ., 2017) which is relevant to the subject and scientific books to be ready in order to evaluate the nurses' practices in post-operative nursing care for patients undergoing uterine fibroid surgery, as well as to demonstrate the nurses' knowledge towards discharge instructions that should be provided to these patients in the

province of Babylon. This questionnaire consists of three main parts (demographic data, nurses' knowledge regarding discharge instructions for patients undergone uterine fibroid surgery and nurses' practices in relation to the nursing care of patients with uterine fibroid surgery) and a number of sub-parts within those main parts. see Appendix (1).

### **Part I: Demographic Data**

This part includes demographic data for the study sample which is consists of nurses who are work in the maternal surgical wards in the five hospitals that were adopted as the place for conducted this study. This part consists of (8) items including (age of the nurses, residency, educational level, years of experience in the hospital, years of experience in the maternal surgical wards, work shift, training session and source of knowledge).

### **Part II: Nurses' knowledge regarding discharge instructions for patients undergone uterine fibroid surgery**

This part of the questionnaire aims to identify the nurses' knowledge regarding the discharge instructions to be provided for patients undergoing uterine fibroid surgery through a set of questions which is focus on this topic and that were designed based on previous studies.

This part contains four aspects, all of them related to the discharge instructions for these patients. The first aspect is the knowledge of nurses regarding home care which is consists of eight questions, the second aspect is the knowledge of nurses in relation to pain care which is consists of seven questions, while the third aspect is the knowledge of nurses in relation to daily activities that is contain nine questions and the fourth aspect of the nurses' knowledge regarding a healthy diet consists of eight questions.

### **Part III: Nurses' practices related to the nursing care of patients with uterine fibroid surgery**

The main purpose of this part of the questionnaire to evaluate the nurses' practices by using observational check list was adopted by the researcher regarding the post-operative nursing care for patients undergoing uterine fibroid surgery in maternal surgical wards of hospitals which is selected for doing this study through a numbers of questions which is focus on this topic and that were designed depend on the previous studies (Stewart et al ., 2017) .

This part includes four domains, all of them related to the evaluation the nursing care in post-operative phase for patients with uterine fibroids surgery. The first domain is the practices of nurses in relation to administering treatment and monitoring patients consists of thirteen questions, the second domain dealing the practice of nurses in relation to the examination of urinary excretion includes six questions, the third domain about the practices of nurses regarding the monitoring of the functions of the digestive system which is consists of seven questions and the fourth domain includes nine questions that is focused on the practices of nurses with regard to improving self-confidence and sexual performance

### **3.7. Validity of the instrument**

The validity of the questionnaire used as a study instrument is deem one of the most substantial subjects that all researchers must doing and addressing in the methodology of the research because of its crucial effect on the research outcomes that are obtained after analyzing the data which is gathering from the sample who are participating in the study. Ordinarily, the validity of the questionnaire is correlating to the tools that is utilize in the research and its ability to measure the topic which is intended to studied and the accuracy of the readings taken from those tools.

The validity and suitability of questionnaire which is utilized in the study was presented after apportionment to (14) experts in nursing and

medical field to assess and review its content before starting the data collection from study sample. All scientific and logical opinions offered by experts about the questionnaire were reviewed by the researcher and supervisor and added to the content of the study tool. The academic, scientific and practical experience in universities and health institutions of the experts whose opinions were taken in the study tool ranged between 13 to 35 years. appendix ( 2 ).

### **3.8. Pilot Study**

The pilot study is a pre-study, concise carried out by the researcher for the purpose of examining the credibility of the tools that will be adopted in the study to collect data from the study sample, the strategies that are followed by the researcher in collecting the sample, the time period spent in taking the data and other basic matters in data gathering. The pilot study considered is one of the vital and basic steps that must be doing before the starting in the main study by the researchers to determine the weaknesses or inevitable problems that the researcher may face in collecting the sample and the practical application of the study steps (Hassan *et al.*, 2006).

The pilot study also considers assistance step to help the researcher or research team to being more familiar about the important points which related to the study questionnaire such as:

- 1- Measurement and testing the qualification of research tool
- 2- Assessing whether the protocol which used in study is workable and realistic.
- 3- Determine the efficiency of technique that is used in selecting the sample of study.
- 4- Clarifying the logistical problems which may face the researcher through the study doing.

5- Determination the time which is required to fill the questionnaire for each sample which participate in the study (Van & Hundley, 2001).

The researcher completed the pilot study in the maternal surgery wards in the five hospitals that were chosen as the place for carried out this study (Imam Al-Sadiq Teaching Hospital, Babel Teaching Hospital for Maternal and Children, Al-Hilla General Teaching Hospital, Al-Hashmiya General Hospital and Al-Zahra Hospital) for the period from 23 to 31 April 2021, the participation of 15 nurses in this study all of whom working in women's surgery wards. Nurses who are participated in the pilot study were excluded from the shared in the main study sample.

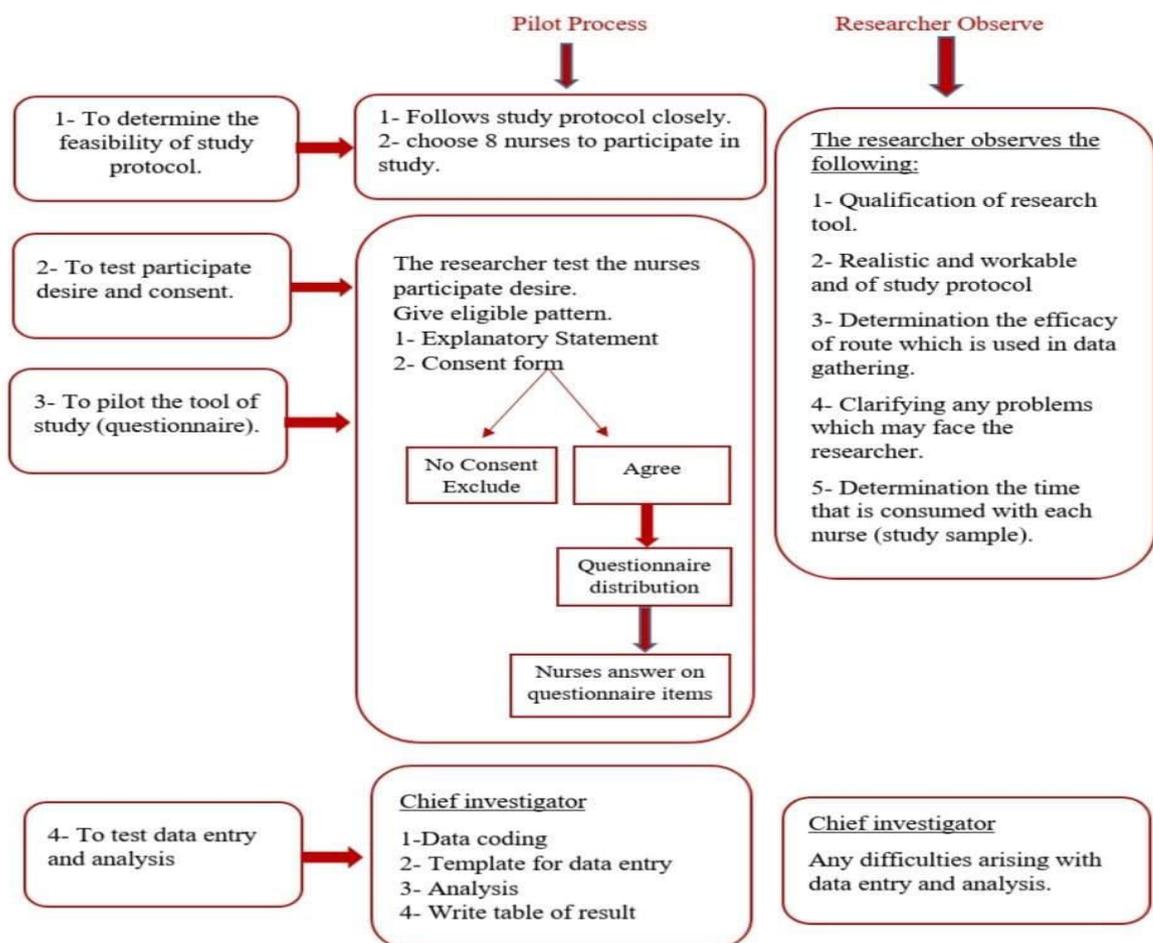


Figure (3.2) Flow chart of pilot study (Scazufca et al., 2019)

### 3.9. Reliability of Questionnaire

Reliability of questionnaire is a way which is use for assessing the internal consistency of questionnaire which is used as a study tool and fineness of the measurement procedure which is used to collect the data from study sample. In order to deem an outcomes valid, the procedure of measurement should first be reliable (Datt and Chetty, 2016).

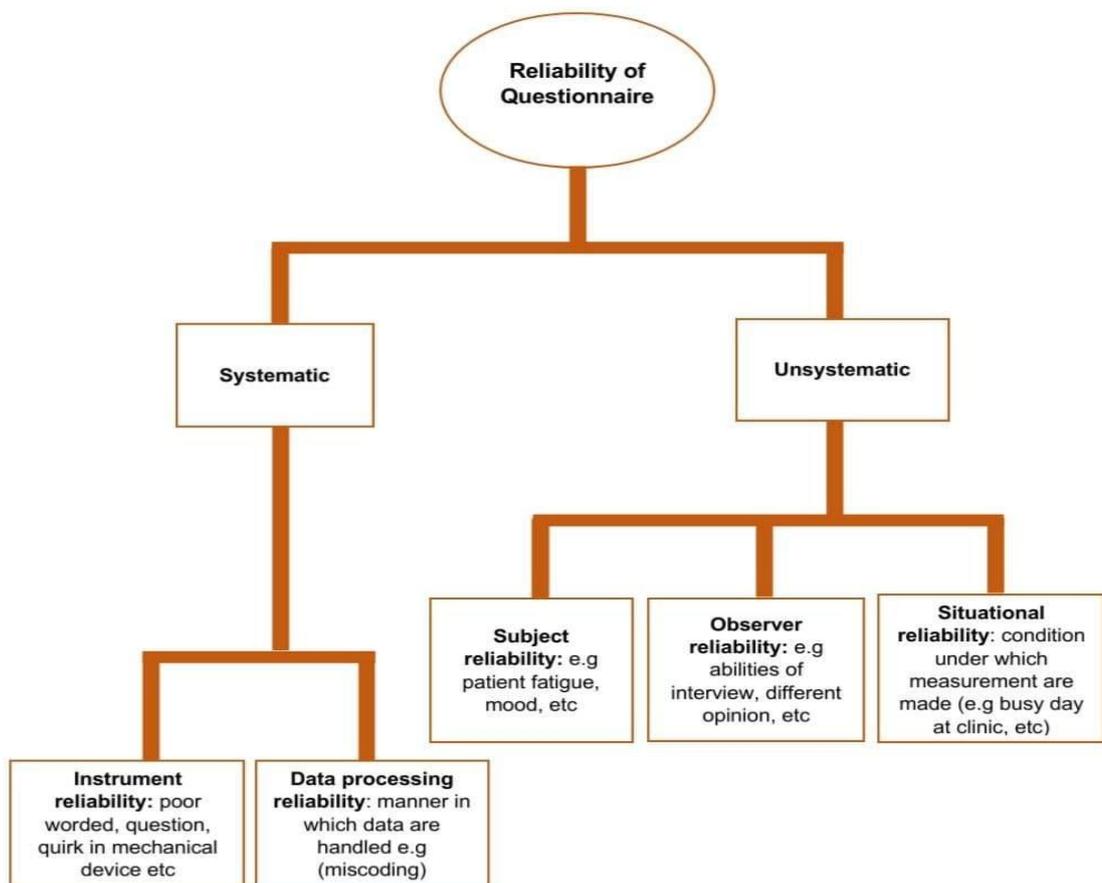


Figure (3.3) Categories of testing the reliability of a questionnaire (Datt and Chetty, 2016)

Testing for reliability is substantial as it mentions toward the consistency through the parts of a measuring tool. Any scale considers with good internal consistency if its contents and measurement the similar

construct. A coefficient of Cronbach Alpha is more ordinarily used to find out the reliability of questionnaire .

Determining the reliability of study tool in order to find out the stability through doing the pilot study and utilize the questionnaire form. After performing and achieved the pilot study by participated fifteen nurses, the reliability of the study instrument was measured by using SPSS program version 23, The Alpha Cronbach's was ( $\alpha= 0.81$ ), this consequence statistically is agreeable.

Table (3.3) Reliability statistics of cronbachs alpha

<b>N. items</b>	<b>Reliability technique</b>	<b>Actual values</b>	<b>Assessment</b>
<b>Knowledge (32 items)</b>	<b>Cronbach's Alpha</b>	<b>0.835</b>	<b>pass</b>
<b>Practices (35 items)</b>	<b>Inter-rater/ inter-observer</b>	<b>0.862</b>	<b>pass</b>

### 3.10. Data Collection

Before initial in the gathering the data from the sample who are participated in the study in the health institutions, the researcher submitted the official approvals which is obtained from the Babylon Health Department. The investigator gave a brief explanation about the main purpose of conducting this study and the desired goal of it. The researcher emphasized on the confidentiality of the information that is taken from the nurses who are shared in the study and it is also used for study purposes only.

The sample was selected from the hospitals that were identified as the place for doing this study. The sample consisted of nurses who work in the gynecological surgery wards to evaluate their practices with regard the post-operative nursing care for patients undergoing uterine fibroid surgery, as well as to assessing the knowledge of those nurses about giving discharge instructions to the patients based on a questionnaire that is prepared and constructed based on previous literature for this purpose.

The researcher adopted two approaches in collecting the data from the sample who are participating in the study in line with the variable and the objective to be measured by the study tool. The first approach relies on the researcher's observation of the post-operative nursing care which provided for patients with uterine fibroid surgery in the gynecological surgical ward to assess their practice. To evaluate these practices, the researcher monitored the nursing care that provided to patients for three times for each sample which is participating in the study, the time consumed in that care was depended on the nurse work during the day .

The second approach that was used by the researcher in the data gathering is the self-report method to assess the nurses' knowledge regarding the discharge instructions that are supposed to be provided for patients undergoing uterine fibroid surgery, the time consumed to answer on the (32) items for each nurse in the gynecological surgical ward in selected hospitals at Babylon province.

### **3.11. Rating and Scoring**

The three points Likert rating scale which was used in this study to evaluate the practices of nurses regarding post-operative nursing care that provided for patients with uterine fibroid surgery and assess the knowledge of nurses related the discharge instructions which is excepted for those patients in gynecological surgical wards. Related the nurses' knowledge about the discharge instructions, the scale consists from three choices :

- I know given = 3 points
- uncertain given = 2 points
- I don't know = 1 points

While regarding the evaluation the practices of nurses regarding post-operative nursing care that provided for patients with uterine fibroid surgery, the researcher used scale consist from three choices:

- completely done = 3
- partially done = 2
- not done = 1

The researcher given the point for each nurse according the nursing care they are providing depending on the investigator observation by using (observational checklist) .

The assessment of response rate of study sample depends on the mean of score, about the nurse's knowledge regarding discharge instructions, the assessment was don't know if the mean of score 1-1.66, uncertain mean of score 1.67-2.33 and I know when mean of score 2.34 and more. While the assessment of nurse's practices toward post-operative nursing care for patients with uterine fibroid surgery was not done at mean of score 1-1.66,

partially done if mean of score 1.67-2.33 and complete done when mean of score 2.34 and more, the cutoff point was (0.66).

### **3.12. Statistical Analysis**

In order to statistically analyze the data collected from the study sample to arrive at the results, the researcher used the SPSS version (23) program to analyze this data and deal with it statistically, to find the relationships between the variables, and obtain the final results of the research based on a set of statistical tests.

#### **3.12.1 Descriptive Data Analysis**

Descriptive statistics includes a set of mathematical and statistical methods that are adopted to describe the main features of a data quantitatively by using tables and charts. Descriptive statistics always aim to present and describe the data which is required to be processed, organized, summarized and categorized, as well as presenting them in a simple and clear manner that makes it easier for the recipient to recognize and understand its content. The analysis performed through use:

**A.** Statistical tables "Frequencies and percent" which are:

$$\% = \frac{\textit{Frequency}}{\textit{Sample Size}} \times 100$$

**B.** Mean of scores (M.s.).

The average score can be calculated by using the following:

$$M.S = \frac{\sum_{ri=1} F_i \times S_i}{\sum_{ri=1} F_i} \times 100$$

The overall responses according to total mean of score which follow:

**Poor Knowledge= 32-53**

**Moderate Knowledge= 54-75**

**Good Knowledge= 76-96**

**For Practices Questionnaire**

$\sum xi$  = sum of the "**1x Not Done + 2x Done Poorly+ 3 x Done Properly**" for items.

- (1) M.s.=1-1.66 is considered **Not Done responses**.
- (2) M.s. = 1.67-2.33 is considered **Done Poorly responses**.
- (3) M.s.  $\geq$ 2.34 is considered **Done Properly responses**.

The overall responses according to total mean of score which follow:

**Poor Practices= 35-58**

**Moderate Practices= 59-82**

**Good Practices= 83-105**

C. The test of standard deviation (SD).

$$SD = \sqrt{\frac{1}{n - 1} \sum_{i=1}^n (Xi - \tilde{\chi})^2}$$

D. It uses a correlational coefficient "Cronbach alpha" used in estimating the internal consistency of the study tool, which can be calculated by using the following:

$$\alpha = \frac{K}{K - 1} \left[ 1 - \frac{\sum_{i=1}^K \sigma_{ii}}{\sum_{i=1}^K \sum_{j=1}^K \sigma_{ij}} \right]$$

K is the items number questions and  $\sigma_{ij}$  is the investigate covariance between the items i and j. Note the  $\sigma_{ii}$  is the variance not standard deviation" of item I.

### 3.12. 2 Inferential data analysis

#### 1. Spearman's Correlation Coefficient

This test is used for qualitative variables (Body Image vs. QoL)

$$P = 1 - \frac{6 \sum d^2 i}{n(n^2 - 1)}$$

#### 2. Simple Liner Regressions

To investigate the effect of body image satisfaction on quality of life for aesthetic clients surgery (*According to Study Hypothesis*).

Shortcuts for measuring important compared to the level, are used as follows:

- ☒ NS: Non-significant when the probability-value is greater than 0.05.
- ☒ S=Significantly at 0.05 probability value.

#### 3. One Way ANOVA

Analysis of variance (ANOVA) for equality of Means (testing for coincidence when the mean's parameter is different).

Source of variance	Sum of square	d.f	Mean square	F
Between Groups	$\frac{(\sum xPI)^2}{n} - \frac{(\sum xP)^2}{n}$	$df_B = K-1$	$\frac{MSB}{MS\beta}$	$\frac{MSB}{MSW}$
Within Groups	$\frac{SS_w = \sum (\sum xPI)^2}{N} - \frac{(\sum xP)^2}{n}$	$df_w = N-k$	$\frac{SS_w}{DF_w}$	
Total	$\frac{SS_T = \sum (\sum xPI)^2}{N} - \frac{(\sum xP)^2}{n}$	$df_i = N-1$		

#### **4. Sample Independent t-test**

The Independent Samples t Test compares the means of two independent groups in order to determine whether there is statistical evidence that the associated population means are significantly different.

$$t = \frac{\bar{X}^1 - \bar{X}^2}{s_p \sqrt{(n_1 - 1)s_1^2 + (n_2 - 1)s_2^2 / (n_1 + n_2 - 2)}}$$

Coggon. *Statistics in Clinical Practice* 2<sup>nd</sup> edition, BMJ Books 2003.

#### **3.14. Limitation of Study**

The researcher faced many obstacles and difficulties in conducting this study, including the emergence of the Corona pandemic that swept the world and led to the cessation of the joints of life as this pandemic forced most of the countries of the world to close themselves and application of the home quarantine, the ban on movement and the suspension of the appearances and activities we grew up on, which created real crises in various aspects of life around us. Therefore, the researcher faced many difficulties in entering to the health institutions that were taken as a place to conduct the study due to the troubled health situation in Iraq and the world as a whole, many nurses were infected with the new Corona virus which led to a shortage in the number of the nursing staff present in the health institutions.

# *Chapter Four*

## *Results of the Study*

## Chapter Four

### Results of the Study

This chapter extensively introduces the outcomes of the research in tables and these refer to the objectives of this report, which are as follows:

**Table 4.1: Distribution the Demographic Variables of Study Sample**

<i>Nurses Demographic Characteristics</i>		
Age/years	F	%
<30years old	<b>46</b>	<b>39.3</b>
30-39years old	40	34.2
40-49years old	21	17.9
≥50 years old	10	8.5
<i>(Mean± SD= 34.70+7.827)</i>		
<i>Total</i>	<i>117</i>	<i>100.0</i>
Address		
Urban	<b>87</b>	<b>74.4</b>
Rural	30	25.6
<i>Total</i>	<i>117</i>	<i>100.0</i>
Education level		
Secondary School Nursing	<b>82</b>	<b>70.1</b>
Diploma Nursing	21	17.9
Bachelor Degree and Above	14	12.0
<i>Total</i>	<i>117</i>	<i>100</i>
Year of experience in hospitals		
<5 years	<b>45</b>	<b>38.5</b>
5-10 years	31	26.5
11-15 years	33	28.2
>15 years	8	6.8
<i>Total</i>	<i>117</i>	<i>100</i>
Years of experience in maternal surgical wards		
<5 years	<b>74</b>	<b>63.2</b>
5-10 years	22	18.8
11-15 years	12	10.3
>15 years	9	7.7
<i>Total</i>	<i>117</i>	<i>100</i>

<b>Work shift</b>		
Morning	<b>97</b>	<b>82.9</b>
Evening	20	17.1
<i>Total</i>	<i>117</i>	<i>100</i>
<b>Training sessions</b>		
Yes	34	29.1
No	<b>83</b>	<b>70.9</b>
<i>Total</i>	<i>117</i>	<i>100.0</i>
<b>Sources of knowledge</b>		
Colleagues	<b>85</b>	<b>72.6</b>
Library	3	2.6
Scientific website	11	9.4
Social media	18	15.4
<i>Total</i>	<i>117</i>	<i>100.0</i>

Finding show participants age, the mean age is 34, the age <30 years old were recorded the highest percentage ( $n=46$ ; 39.3%), followed by those who are age 30-39 years old ( $n=40$ ; 34.2%), followed by those who are age 40-49 years and old ( $n=21$ ; 17.9%), and followed by those who are age  $\geq 50$  years old ( $n=10$ ; 8.5%). Regarding to the residents, the urban residents were predominated ( $n=87$ ; 74.4%), as compared with those who are rural residents ( $n=30$ ; 25.6%).

In regards with education level, the secondary school nursing recorded the highest percentage ( $n=82$ ; 70.1%), followed by those who are diploma graduated ( $n=21$ ; 17.9%), and followed by those who are bachelor degree graduated and above ( $n=14$ ; 12.0%). Years of experience related findings, the nurses express less than 5 years' experience ( $n=35$ ; 38.5%), followed by those who are experience 11-15 years ( $n=33$ ; 28.2%), followed by those who are experience 5-10 years ( $n=31$ ; 26.5%), and followed by those who are experience >15 years ( $n=8$ ; 6.8%).

In terms of experience in maternal surgical wards, most of nurses express less than 5 years' experience ( $n=74$ ; 63.2%), followed by those who are experience 5-10 years ( $n=22$ ; 18.8%), and followed by those who are experience 11-15 years ( $n= 12$ ; 10.3%) and finally nurses with experience >15years ( $n=9$ ; 7.7%). Regarding work-shift, most of nurses work at morning ( $n=97$ ; 82.2%), as compared with those who are work at evening shift ( $n=20$ ; 17.1%). Concerning training courses, most of nurses expressed no attended training sessions ( $n=83$ ; 70.9%), as compared with those who are attended training sessions ( $n=34$ ; 29.1%).

Sources of knowledge use by nurses, it is obvious among findings the most sources were colleagues ( $n=85$ ; 72.6%), followed by those who are use social media as a sources of knowledge ( $n=18$ ; 15.4%), followed by those who use scientific website ( $n=11$ ; 9.4%), and followed by those who are use library ( $n=3$ ; 2.6%).

#### 4.2. Nurse Knowledge regarding Discharge Instructions for Patients Undergoing Uterine Fibroid Surgery

**Table 4.2.1: Knowledge related to Home Care**

List	Home Care Items	Weighted	Freq.	%	Ass.
1	After the uterine fibroids surgery, the patient needs to rest at home for a period of 3 to 7 days after the surgery.	Don' know	74	63.2	Poor
		Uncertain	37	31.6	
		Know	6	5.1	
<i>M.s. ± SD 1.41± 0.590</i>					
2	It is very important to instruct the patient to take all prescribed medications as directed by the doctor.	Don' know	81	69.2	Poor
		Uncertain	34	29.1	
		Know	2	1.7	
<i>M.s. ± SD 1.32±0.505</i>					
3	Continued coughing and deep breathing exercises are very important for the patient to improve the functioning of the lungs.	Don' know	73	62.4	Poor
		Uncertain	41	35.0	
		Know	3	2.6	
<i>M.s. ± SD 1.40±0.542</i>					

4	If the surgery is performed by laparoscopy, the patient will have several small incisions in his abdomen, it is necessary to keep these incisions clean and change the dressings..	Don' know	86	73.5	Poor
		Uncertain	25	21.4	
		Know	6	5.1	
<i>M.s. ± SD 1.31±0.567</i>					
5	If the patient has stitches inside the vagina, do not worry, they will absorb over time and will not need to be removed.	Don' know	90	76.9	Poor
		Uncertain	23	19.7	
		Know	4	3.4	
<i>M.s. ± SD 1.31±0.567</i>					
6	Instruct the patient to the necessity to use sanitary pads to absorb any vaginal bleeding or secretions that may occur.	Don' know	85	72.6	Poor
		Uncertain	28	23.9	
		Know	4	3.4	
<i>M.s. ± SD 1.30±0.532</i>					
7	The patient may have brownish secretions that last for up to 6 weeks, so there is no need to worry about that.	Don' know	73	62.4	Poor
		Uncertain	40	34.2	
		Know	4	3.4	
<i>M.s. ± SD 1.41±0.559</i>					
8	The patient is advised to avoid using tampons or douches, as it can cause transmission of infection.	Don' know	104	88.9	Poor
		Uncertain	12	10.3	
		Know	1	.9	

"(M.s.) Mean of score, (SD) Standard deviation, Level of Assessment (Poor [M.s.= 1-1.66], Moderate [M.s.=1.67-2.33], Good [M.s. =2.34-3])"

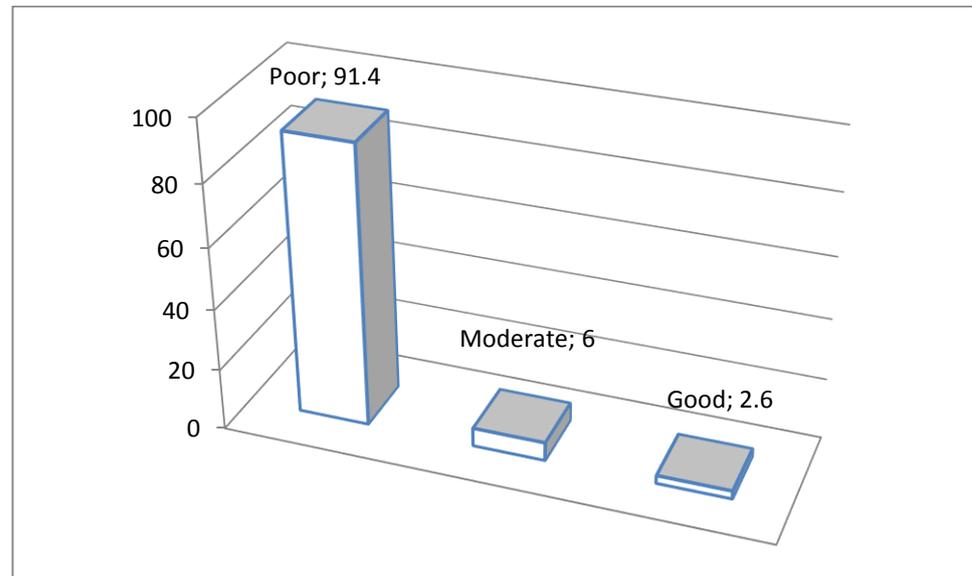
This table demonstrated that the nurses expressed a poor response regards knowledge related to home care for patients undergoing uterine fibroid surgery at all items of the scale.

**Table 4.2.2: Overall Nurses Knowledge related to Home Care for Patients Undergoing Uterine Fibroid Surgery**

Weighted	Freq.	%	M ± SD
Poor	107	<b>91.4</b>	10.56±2.298
Moderate	7	6.0	
Good	3	2.6	
<i>Total</i>	117	100.0	

**M:** Mean for total score, **SD**=Standard Deviation for total score  
(Poor= 8-13, Moderate= 14-19, Good= 20-24)

The analysis of knowledge related to home care for patients undergoing uterine fibroid surgery was demonstrating at Mean  $\pm$  SD=10.56 $\pm$ 2.298; and according to the study criteria, the majority of nurses expressed a poor level of knowledge ( $n=107$ ; %=91.4).



**Figure (4.1) Knowledge related to Home Care**

**Table 4.2.3: Knowledge related to Pain Management**

List	Pain Management Items	Weighted	Freq.	%	Ass.
1	The cause of pain and discomfort in the patient is due to swelling inside the abdomen and the effects of the surgery.	Don' know	61	52.1	<i>Poor</i>
		Uncertain	52	44.4	
		Know	4	3.4	
M.s. $\pm$ SD 1.51 $\pm$ 0.566					
2	The patient should take pain reliever as indicated on the package or as directed by his health care provider.	Don' know	89	76.1	<i>Poor</i>
		Uncertain	24	20.5	
		Know	4	3.4	
M.s. $\pm$ SD 1.27 $\pm$ 0.519					
3	The patient may feel pain in the shoulder after the endoscopic surgery due to the gases used to expand the abdomen during the surgery, the pain may last for 7 days	Don' know	95	81.2	<i>Poor</i>
		Uncertain	18	15.4	
		Know	4	3.4	
M.s. $\pm$ SD 1.22 $\pm$ 0.493					

4	Educating the patient that the pain will gradually disappear day after day, so your need for painkillers should decrease.	Don' know	77	65.8	<i>Poor</i>
		Uncertain	34	29.1	
		Know	6	5.1	
M.s. ± SD 1.39± 0.586					
5	Hot water can be used when feeling pain and discomfort, and the patient is instructed not to use an electric blanket or heating pad	Don' know	42	35.9	<i>Moderate</i>
		Uncertain	62	53.0	
		Know	13	11.1	
M.s. ± SD 1.75± 0.642					
6	Warm compresses can be used on the abdomen to relieve pain	Don' know	71	60.7	<i>Poor</i>
		Uncertain	42	35.9	
		Know	4	3.4	
M.s. ± SD 1.42± 0.561					
7	Use of antibiotics as prescribed by the doctor, with the need not to stop them when symptoms improve	Don' know	43	36.8	<i>Moderate</i>
		Uncertain	37	31.6	
		Know	37	31.6	
M.s. ± SD 1.94± 0.828					

"(M.s.) Mean of score, (SD) Standard deviation, Level of Assessment (Poor [M.s.= 1-1.66], Moderate [M.s.=1.67-2.33], Good [M.s. =2.34-3])"

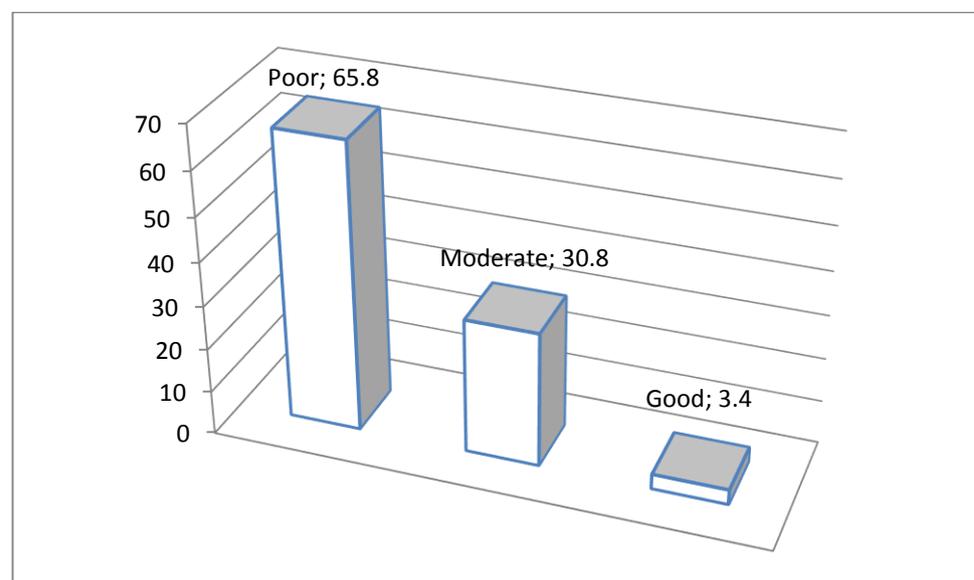
This table illustrated that the nurses expressed a poor response regards knowledge related to pain management for patients undergoing uterine fibroid surgery at all items of the scale except, items number (5 & 7), the responses expressed a moderate level of knowledge.

**Table 4.2.4: Overall Nurses Knowledge related to Pain Management for Patients Undergoing Uterine Fibroid Surgery**

Weighted	Freq.	%	M ± SD
Poor	77	<b>65.8</b>	10.52±2.408
Moderate	36	30.8	
Good	4	3.4	
<i>Total</i>	117	100.0	

**M: Mean for total score, SD: Standard Deviation for total score  
(Poor= 7-11, Moderate= 12-16, Good= 17-21)**

The analysis of knowledge related to pain management for patients undergoing uterine fibroid surgery was demonstrated at Mean ± SD=10.52±2.408; and according to the study criteria, the nurses expressed a poor level of knowledge ( $n=77$ ; %=65.8).



**Figure (4.2) Knowledge related to Pain Management**

**Table 4.2.5: Knowledge related to Daily Activities**

List	Daily Activities Items	Weighted	Freq.	%	Ass.
1	The patient is advised to avoid strenuous activities and exercises that require great effort	Don't know	80	68.4	<i>Poor</i>
		Uncertain	34	29.1	
		Know	3	2.6	
M.s. ± SD 1.34 ± 0.527					
2	Instruct the patient to avoid carrying or lifting anything that weighs more than 10 pounds (5kg) for at least 6 weeks after the operation.	Don't know	69	59.0	<i>Poor</i>
		Uncertain	37	31.6	
		Know	11	9.4	
M.s. ± SD 1.50 ± 0.664					
3	The patient should avoid lying down for long periods of time to avoid any complications.	Don't know	66	56.4	<i>Poor</i>
		Uncertain	46	39.3	
		Know	5	4.3	
M.s. ± SD 1.47 ± 0.581					
4	The patient should avoid lying down for long periods of time to avoid any complications.	Don't know	56	47.9	<i>Moderate</i>
		Uncertain	25	21.4	
		Know	36	30.8	
M.s. ± SD 1.82 ± 0.873					
5	While walking or practicing some simple exercise, the patient should take periods of rest and not exert herself.	Don't know	85	72.6	<i>Poor</i>
		Uncertain	27	23.1	
		Know	5	4.3	
M.s. ± SD 1.31 ± 0.551					
6	The patient can do some light work such as washing dishes and cooking, but sweeping should be avoided because it affect the SSI.	Don't know	76	65.0	<i>Poor</i>
		Uncertain	36	30.8	
		Know	5	4.3	
M.s. ± SD 1.39 ± 0.571					
7	If the patient is driving a car, should avoid this until she is completely recovered after the surgery.	Don't know	91	77.8	<i>Poor</i>
		Uncertain	22	18.8	
		Know	4	3.4	
M.s. ± SD 1.25 ± 0.511					
8	The patient is advised to resume sexual activity after 6 weeks of the surgery.	Don't know	89	76.1	<i>Poor</i>
		Uncertain	23	19.7	
		Know	5	4.3	
M.s. ± SD 1.28 ± 0.538					
9	Not trying to conceive until after the doctor determines the appropriate time	Don't know	90	76.9	<i>Poor</i>
		Uncertain	18	15.4	
		Know	9	7.7	
M.s. ± SD 1.30 ± 0.608					

"(M.s.) Mean of score, (SD) Standard deviation, Level of Assessment ( Poor [M.s.= 1-1.66], Moderate [M.s.=1.67-2.33], Good [M.s. =2.34-3])"

According to statistical analysis of mean, this table indicate that the nurses expressed a poor response regards knowledge related to daily activities for patients undergoing uterine fibroid surgery at all items of the scale except, item number (4), the responses expressed a moderate level of knowledge.

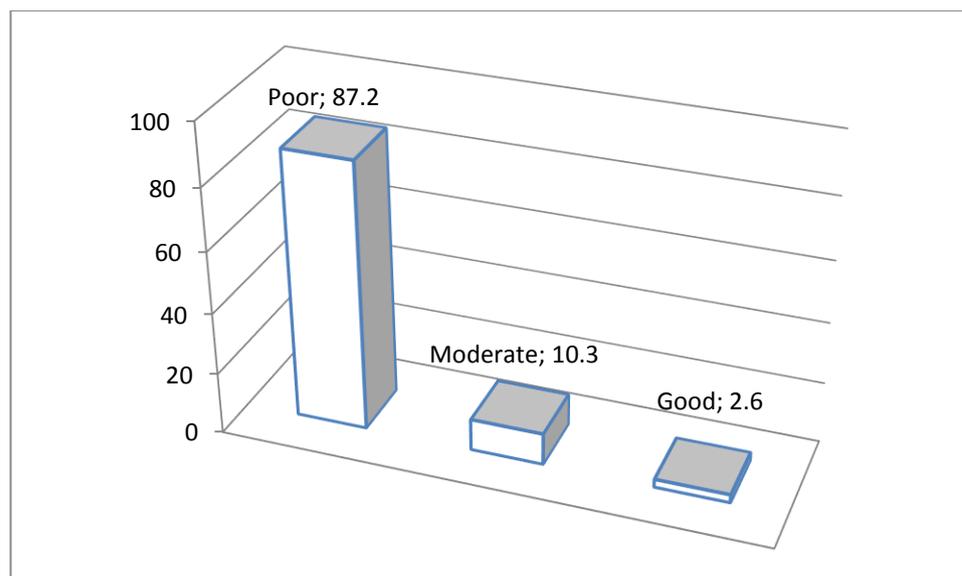
**Table 4.2.6: Overall Nurses Knowledge related to Daily Activities for Patients Undergoing Uterine Fibroid Surgery**

Weighted	Freq.	%	M ± SD
Poor	102	<b>87.2</b>	12.70±2.882
Moderate	12	10.3	
Good	3	2.6	
<i>Total</i>	117	100.0	

**M: Mean for total score, SD: Standard Deviation for total score**

**(Poor= 9-15, Moderate= 16-21, Good= 22-27)**

The analysis of knowledge related to daily activities for patients undergoing uterine fibroid surgery was demonstrated at Mean± SD=12.70±2.882; and according to the study criteria, the nurses expressed a poor level of knowledge ( $n=102$ ; %=87.2).



**Figure (4.3) Knowledge related to Daily Activities**

**Table 4.2.7: Knowledge related to Healthy Diet**

List	Health Diet Items	Weighted	Freq.	%	Ass.
1	Preferable to eat nutritious foods that contain the necessary vitamins and minerals that will aid in faster recovery surgery.	Don' know	57	48.7	<i>Moderate</i>
		Uncertain	39	33.3	
		Know	21	17.9	
M.s. ± SD 1.69±0.759					
2	The patient should eat foods that is rich in fiber such as whole grains, raw fruits and vegetables, and prunes.	Don' know	78	66.7	<i>Poor</i>
		Uncertain	30	25.6	
		Know	9	7.7	
M.s. ± SD 1.41±0.631					
3	The patient is advised to drink about 6 to 8 cups of water per day to maintain the fluid level in the body.	Don' know	82	70.1	<i>Poor</i>
		Uncertain	29	24.8	
		Know	6	5.1	
M.s. ± SD 1.35±0.577					
4	Vegetables and fruits recommended to be eaten to avoid constipation and indigestion.	Don' know	81	69.2	<i>Poor</i>
		Uncertain	27	23.1	
		Know	9	7.7	
M.s. ± SD 1.38±0.627					
5	Avoid starchy foods that are difficult to digest, such as bread and pasta.	Don' know	89	76.1	<i>Poor</i>
		Uncertain	23	19.7	
		Know	5	4.3	
M.s. ± SD 1.28±0.538					

6	Avoid eating foods that contain a high proportion of sugars, caffeine, and soft drinks, as they do not health benefit for pt..	Don' know	66	56.4	<i>Poor</i>
		Uncertain	42	35.9	
		Know	9	7.7	
M.s. ± SD 1.51±0.638					
7	Avoid eating fatty and fried foods that may lead to digestive problems and an increase in the patient's weight	Don' know	74	63.2	<i>Poor</i>
		Uncertain	33	28.2	
		Know	10	8.5	
M.s. ± SD 1.45±0.649					
8	If the constipation persists, advise the patient to take a stool softener or a mild laxative.	Don' know	91	77.8	<i>Poor</i>
		Uncertain	19	16.2	
		Know	7	6.0	
M.s. ± SD 1.28±0.570					

"(M.s.) Mean of score, (SD) Standard deviation, Level of Assessment (Poor [M.s.= 1-1.66], Moderate [M.s.=1.67-2.33], Good [M.s. =2.34-3])"

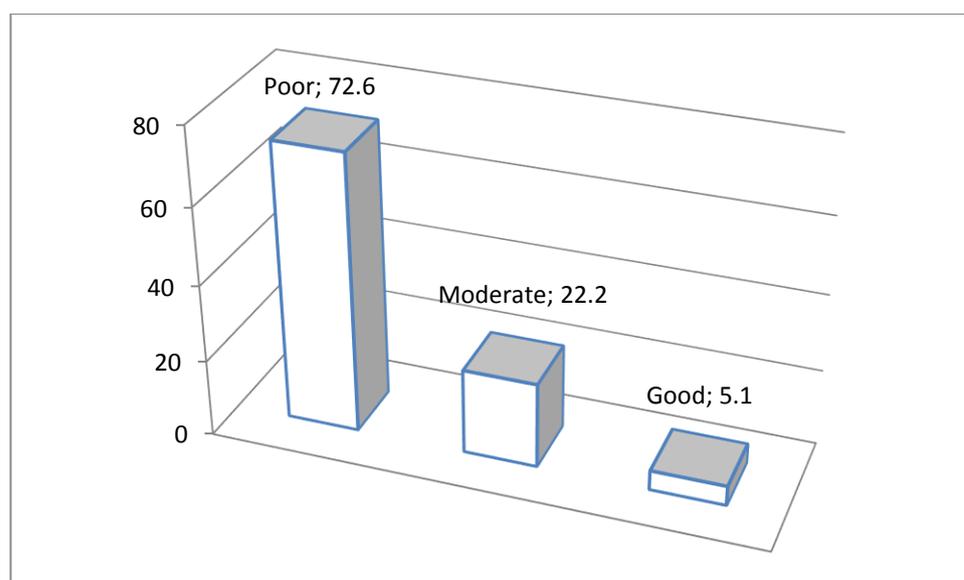
According to statistical analysis of mean, this table reveals that the nurses expressed a poor response regards knowledge related to healthy diet for patients undergoing uterine fibroid surgery at all items of the scale except, item number (1) the responses expressed a moderate level of knowledge.

**Table 4.2.8: Overall Nurses Knowledge related to Healthy Diet for Patients Undergoing Uterine Fibroid Surgery**

Weighted	Freq.	%	M ± SD
Poor	85	<b>72.6</b>	11.36±3.649
Moderate	26	22.2	
Good	6	5.1	
<i>Total</i>	117	100.0	

M: Mean for total score, SD=Standard Deviation for total score  
(Poor= 8-13, Moderate= 14-19, Good= 20-24)

The analysis of knowledge related to healthy diet for patients undergoing uterine fibroid surgery was demonstrated at Mean  $\pm$  SD =11.36 $\pm$ 3.649; and according to the study criteria, the nurses expressed a poor level of knowledge ( $n=85$ ; %=72.6).



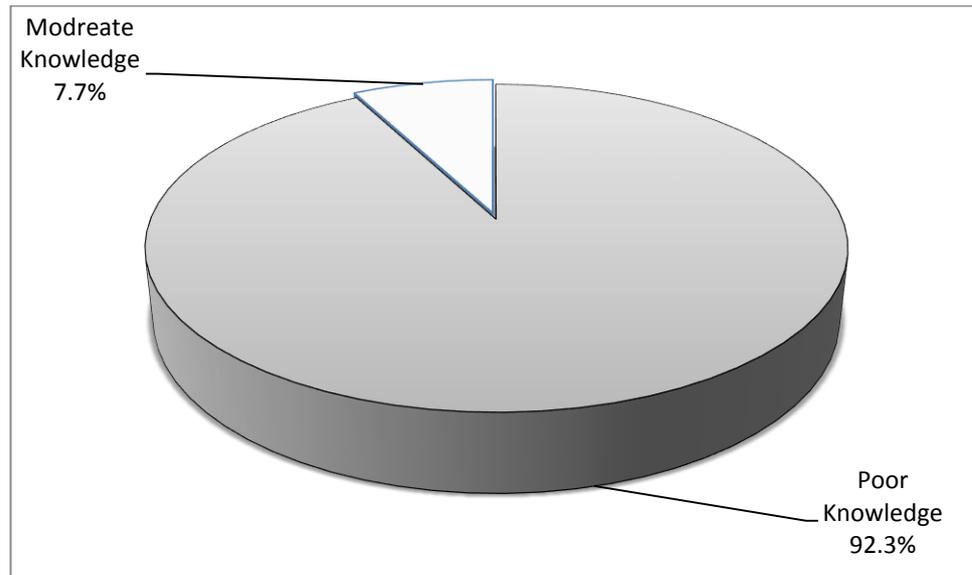
**Figure (4.4) Knowledge related to Health Diet**

**Table 4.2.9: Overall Assessment of Nurses Knowledge related to Discharge Instructions for Patients Undergoing Uterine Fibroids Surgery**

Weighted	Freq.	M $\pm$ SD
Poor Knowledge	108	45.17 $\pm$ 5.551
Moderate Knowledge	9	
<i>Total</i>	117	

**M: Mean for total score, SD=Standard Deviation for total score  
(Poor= 32-53, Moderate= 54-75, Good= 76-96)**

The analysis of knowledge related discharge instructions for patients undergoing uterine fibroids surgery was demonstrated at Mean  $\pm$  SD=45.17 $\pm$ 5.551; and according to the total mean of score, the majority of nurses expressed a poor level of knowledge ( $n=108$ ; %=92.3).



**Figure (4.5) Knowledge related to Discharge Instructions for Patients Undergoing Uterine Fibroids Surgery**

### 4.3. Nurses Practices Concerning Postoperative nursing care for Patients Undergoing Uterine Fibroid Surgery

**Table 4.3.1: Practices related to Treatment Administration and Patients Monitoring**

List	Treatment Administration Items	Weighted	Freq.	%	Ass.
1	When the patient arrived from the operating theater to the ward, she were placed in a comfortable position ..	Not done	48	41.0	<i>Done poorly</i>
		Done poorly	49	41.9	
		Done properly	20	17.1	
<i>M.s. ± SD</i>		<i>1.76±0.726</i>			
2	Measurement vital signs; palpate peripheral pulses, and note capillary refill.	Not done	48	41.0	<i>Done poorly</i>
		Done poorly	56	47.9	
		Done properly	13	11.1	
<i>M.s. ± SD</i>		<i>1.70±0.660</i>			
3	Inspect dressings of the surgical incision and perineal pads, noting color, amount, and odor of drainage.	Not done	36	30.8	<i>Done poorly</i>
		Done poorly	51	43.6	
		Done properly	30	25.6	
<i>M.s. ± SD</i>		<i>1.94±0.752</i>			
4	The nurse observed whether the vaginal bleeding was present and paid attention about the amount if excessive bleeding	Not done	73	62.4	<i>Not done</i>
		Done poorly	36	30.8	
		Done properly	8	6.8	
<i>M.s. ± SD</i>		<i>1.44±0.622</i>			
5	Give treatment in an accurate manner, according to the doctor's prescription.	Not done	33	28.2	<i>Done poorly</i>
		Done poorly	41	35.0	
		Done properly	43	36.8	
<i>M.s. ± SD</i>		<i>2.08±0.804</i>			
6	Administer intravenous fluids and blood products as indicated.	Not done	5	4.3	<i>Done properly</i>
		Done poorly	53	45.3	
		Done properly	59	50.4	
<i>M.s. ± SD</i>		<i>2.46±0.580</i>			
7	Giving pain reliever treatments immediately, as directed by your doctor.	Not done	2	1.7	<i>Done properly</i>
		Done poorly	38	32.5	
		Done properly	77	65.8	
<i>M.s. ± SD</i>		<i>2.64±0.516</i>			
8	Turn the patient and encourage frequent coughing and deep-breathing exercises.	Not done	83	70.9	<i>Not done</i>
		Done poorly	25	21.4	
		Done properly	9	7.7	
<i>M.s. ± SD</i>		<i>1.36±0.624</i>			
9	Assist and instruct in foot and leg exercises and ambulate as soon as able.	Not done	52	44.4	<i>Not done</i>
		Done poorly	54	46.2	
		Done properly	11	9.4	
<i>M.s. ± SD</i>		<i>1.64±0.647</i>			

10	Encourage ambulation and active range-of-motion exercises in bed to prevent thrombophlebitis and venous stasis	Not done	39	33.3	Done poorly
		Done poorly	48	41.0	
		Done properly	30	25.6	
<i>M.s. ± SD</i>		<i>1.92±0.767</i>			
11	Continuous observation patient's health and news in the event of swelling in the limbs or reports of sudden chest pain.	Not done	22	18.8	Done poorly
		Done poorly	45	38.5	
		Done properly	50	42.7	
<i>M.s. ± SD</i>		<i>2.23±0.750</i>			
12	Helping and encouraging changing the patient's clothes frequently to enhance and maintain hygiene.	Not done	59	50.4	Not done
		Done poorly	50	42.7	
		Done properly	8	6.8	
<i>M.s. ± SD</i>		<i>1.56±0.621</i>			
13	Helping to change the patient's position frequently and using pillows to enhance comfort and relieve pain.	Not done	69	59.0	Not done
		Done poorly	43	36.8	
		Done properly	5	4.3	
<i>M.s. ± SD</i>		<i>1.45±0.579</i>			

"(M.s.) Mean of score, (SD) Standard deviation, Level of Assessment (Not done [M.s.= 1-1.66], Done poorly [M.s.=1.67-2.33], Done properly [M.s.=2.34-3])"

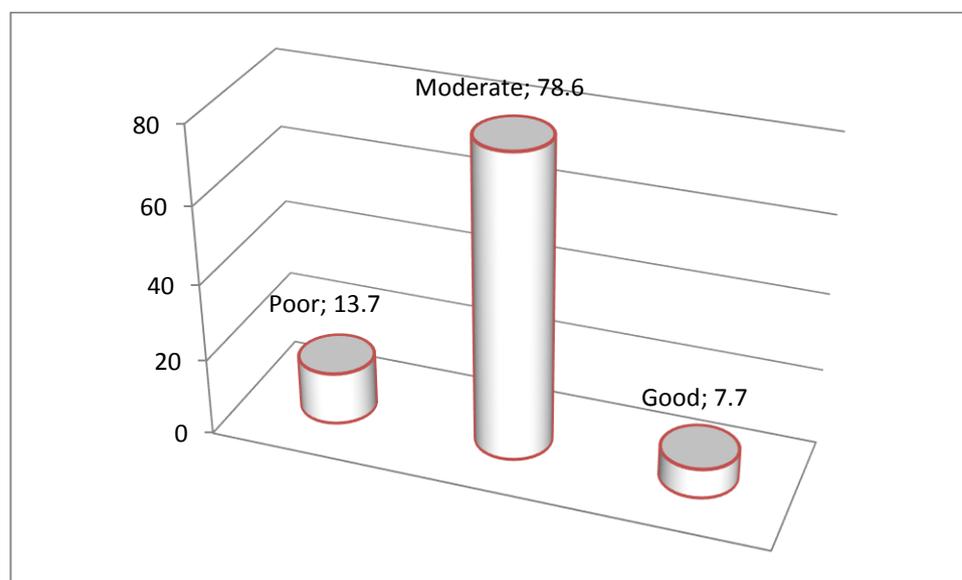
According to statistical analysis of mean, this table depict that the nurses expressed a done poorly responses regards practices related to treatment administration and monitoring of patients undergoing uterine fibroid surgery at all items of the scale except, item number (4, 8, 9, 12 & 13) the responses expressed a not done. While, the items number (6 & 7) the responses were properly done.

**Table 4.3.2: Overall Nurses Practices related to Treatment Administration and Uterine Fibroid Surgery Patients Monitoring**

Weighted	Freq.	%	M ± SD
Poor	16	13.7	24.23±4.042
Moderate	92	<b>78.6</b>	
Good	9	7.7	
<i>Total</i>	117	100.0	

**M: Mean for total score, SD: Standard Deviation for total score (Poor= 13-21, Moderate= 22-30, Good= 31-39)**

The analysis of practices related to treatment administration and monitoring the patients undergoing uterine fibroid surgery was demonstrated at Mean  $\pm$  SD=24.23 $\pm$ 4.042; and according to the study criteria, the nurses expressed a moderate level of practices ( $n=92$ ; %=78.6).



**Figure (4.6) Practices related to Treatment Administration and Patients Monitoring**

**Table 4.3.3: Practices related to Checking Urinary Elimination**

List	Checking Urinary Elimination Items	Weighted	Freq.	%	Ass.
1	The nurse observed the emptying pattern and monitored the amount of urine output?	Not done	29	24.8	<i>Done poorly</i>
		Done poorly	55	47.0	
		Done properly	33	28.2	
<i>M.s. <math>\pm</math> SD</i>		<i>2.03<math>\pm</math>0.730</i>			
2	The nurse palpated the bladder to make sure the bladder is full or the patient is unable to urinate normally.	Not done	81	69.2	<i>Not done</i>
		Done poorly	34	29.1	
		Done properly	2	1.7	
<i>M.s. <math>\pm</math> SD</i>		<i>1.32<math>\pm</math>0.505</i>			
3	The patient was provided with routine urine emptying procedures	Not done	107	91.5	<i>Not done</i>
		Done poorly	4	3.4	
		Done properly	6	5.1	
<i>M.s. <math>\pm</math> SD</i>		<i>1.13<math>\pm</math>0.471</i>			
4	Putting a urinary catheter for a patient who is unable to empty urine normally?	Not done	27	23.1	<i>Done poorly</i>
		Done poorly	45	38.5	
		Done properly	45	38.5	
<i>M.s. <math>\pm</math> SD</i>		<i>2.15<math>\pm</math>0.772</i>			

5	The nurse monitored and evaluated the characteristics of the urine, noting the color, clarity and smell.	Not done	89	76.1	Not done
		Done poorly	23	19.7	
		Done properly	5	4.3	
<i>M.s. ± SD</i>		<i>1.28±0.538</i>			
6	Has attention been paid to the cleanliness of the urinary catheter and to ensure its effectiveness after placing it?	Not done	102	87.2	Not done
		Done poorly	13	11.1	
		Done properly	2	1.7	
<i>M.s. ± SD</i>		<i>1.14±0.399</i>			

"(M.s.) Mean of score, (SD) Standard deviation, Level of Assessment (Not done [M.s.= 1-1.66], Done poorly [M.s.=1.67-2.33], Done properly [M.s.=2.34-3])"

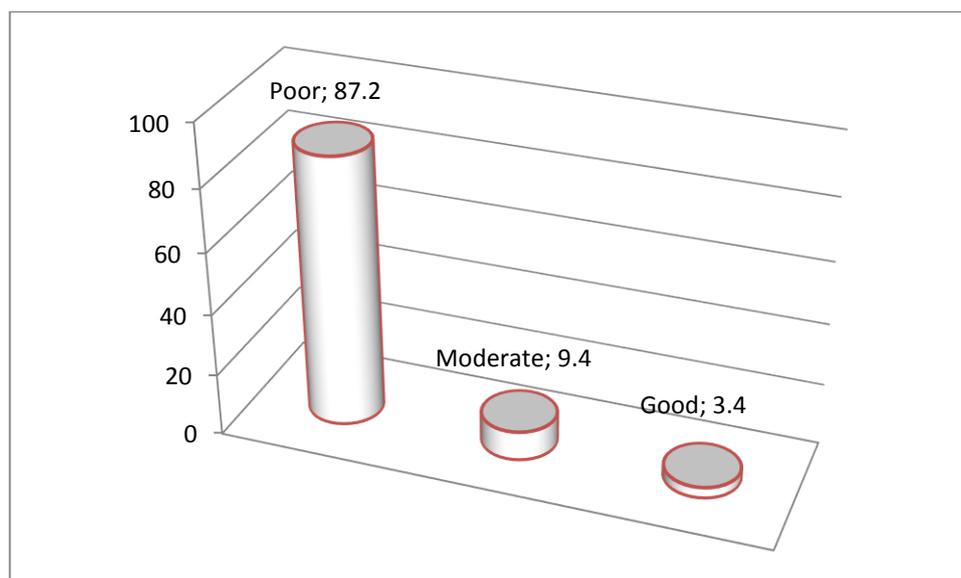
According to statistical analysis of mean, this table show that the nurses expressed not done responses regards practices related to checking urinary elimination for patients undergoing uterine fibroid surgery at all items of the scale except, item number (1 & 4) the responses expressed a done poorly.

**Table 4.3.4: Overall Nurses Practices related to Checking Urinary Elimination**

Weighted	Freq.	%	M ± SD
Poor	102	<b>87.2</b>	9.07±1.791
Moderate	11	9.4	
Good	4	3.4	
<i>Total</i>	117	100.0	

**M: Mean for total score, SD: Standard Deviation for total score  
(Poor= 6-10, Moderate= 11-14, Good= 15-18)**

The analysis of practices related to concerning checking urinary elimination for patients undergoing uterine fibroid surgery was demonstrated at Mean ± SD=9.07±1.791; and according to the study criteria, the nurses expressed a poor level of practices ( $n=102$ ; %=87.2).



**Figure (4.7) Practices related to related to Checking Urinary Elimination**

**Table 4.3.5: Practices related to Monitor Gastrointestinal Functions**

List	GIT monitor Items	Weighted	Freq.	%	Ass.
1	Administer antiemetic to control nausea and vomiting according physician order.	Not done	13	11.1	<i>Done properly</i>
		Done poorly	47	40.2	
		Done properly	57	48.7	
<i>M.s. ± SD</i>		<i>2.37±0.678</i>			
2	The nurse auscultated the bowel sounds, note abdominal distension and presence of nausea and vomiting.	Not done	110	94.0	<i>Not done</i>
		Done poorly	7	6.0	
		Done properly	0	0.0	
<i>M.s. ± SD</i>		<i>1.05±0.238</i>			
3	The nurse assist patient to sitting on the edge of the bed and walking.	Not done	109	93.2	<i>Not done</i>
		Done poorly	6	5.1	
		Done properly	2	1.7	
<i>M.s. ± SD</i>		<i>1.08±0.336</i>			
4	Monitor elimination and provide increased fluids and fiber to prevent constipation and straining.	Not done	86	73.5	<i>Not done</i>
		Done poorly	30	25.6	
		Done properly	1	.9	
<i>M.s. ± SD</i>		<i>1.27±0.466</i>			

5	Restrict oral intake as indicated.	Not done	79	67.5	Not done
		Done poorly	34	29.1	
		Done properly	4	3.4	
<i>M.s. ± SD 1.29±0.455</i>					
6	Provide clear or full liquids and advance to solid foods gradually as tolerated.	Not done	91	77.8	Not done
		Done poorly	23	19.7	
		Done properly	3	2.6	
<i>M.s. ± SD 1.24±0.489</i>					
7	Administer medications: stool softeners, mineral oil, laxatives, as indicated.	Not done	29	24.8	Done poorly
		Done poorly	53	45.3	
		Done properly	35	29.9	
<i>M.s. ± SD 2.05±0.74</i>					

"(M.s.) Mean of score, (SD) Standard deviation, Level of Assessment (Not done [M.s.= 1-1.66], Done poorly [M.s.=1.67-2.33], Done properly [M.s.=2.34-3])"

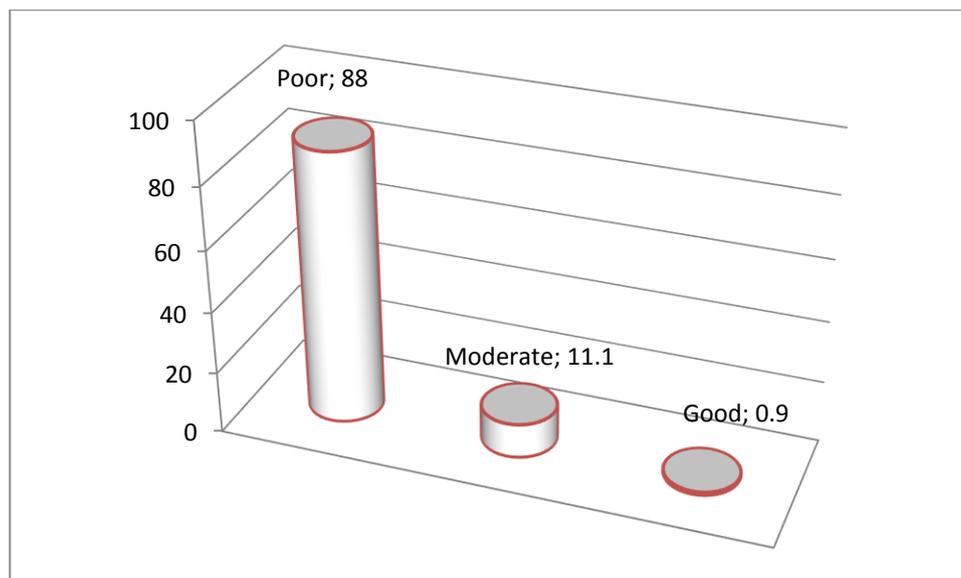
According to statistical analysis of mean, this table presented that the nurses expressed not done responses regards practices related to monitor gastrointestinal functions for patients undergoing uterine fibroid surgery at all items of the scale except, item number (1 & 7) the responses expressed a done properly and done poorly respectively.

**Table4.3.6: Overall Nurses Practices related to Monitor Gastrointestinal Functions**

Weighted	Freq.	%	M ± SD
Poor	103	<b>88.0</b>	10.38±1.278
Moderate	13	11.1	
Good	1	0.9	
<i>Total</i>	117	100.0	

**M: Mean for total score, SD: Standard Deviation for total score  
(Poor= 7-11, Moderate= 12-16, Good= 17-21)**

The analysis of practices related to concerning monitor gastrointestinal functions for patients undergoing uterine fibroid surgery was demonstrated at Mean  $\pm$  SD=10.38 $\pm$ 1.278; and according to the study criteria, the nurses expressed a poor level of practices ( $n=103$ ; %=88).



**Figure (4.8) Practices related to Monitor Gastrointestinal Functions**

**Table 4.3.7: Practices related to Improving the Self- Confidence and Sexual Functioning**

List	Self- Confidence Items	Weighted	Freq.	%	Ass.
1	The nurse provide enough time to listen for the patient fears of and discuss about perceptions related lifestyle.	Not done	64	54.7	Not done
		Done poorly	44	37.6	
		Done properly	9	7.7	
<i>M.s. <math>\pm</math> SD</i>		<i>1.52<math>\pm</math>0.637</i>			
2	Assess the emotional stress of the patient and listen to her comments and provide an open environment during discussions.	Not done	76	65.0	Not done
		Done poorly	32	27.4	
		Done properly	9	7.7	
<i>M.s. <math>\pm</math> SD</i>		<i>1.42<math>\pm</math>0.634</i>			
3	Provide accurate information about sexual health and reinforcing the information previously that is given.	Not done	79	67.5	Not done
		Done poorly	29	24.8	
		Done properly	9	7.7	
<i>M.s. <math>\pm</math> SD</i>		<i>1.40<math>\pm</math>0.630</i>			

4	The nurse assessing the patient's information regarding sexual function and effects of surgical procedure on it.	Not done	83	70.9	Not done
		Done poorly	26	22.2	
		Done properly	8	6.8	
<i>M.s. ± SD</i>		1.35±0.608			
5	Providing an open environment for the patient by nursing team to discuss concerns about sexuality.	Not done	74	63.2	Not done
		Done poorly	32	27.4	
		Done properly	11	9.4	
<i>M.s. ± SD</i>		1.46±0.663			
6	Encourage the patient about the importance of sharing thoughts and concerns with partner.	Not done	78	66.7	Not done
		Done poorly	28	23.9	
		Done properly	11	9.4	
<i>M.s. ± SD</i>		1.42±0.660			
7	Instruct the patients about problem-solving for potential problems ...	Not done	89	76.1	Not done
		Done poorly	17	14.5	
		Done properly	11	9.4	
<i>M.s. ± SD</i>		1.33±0.643			
8	The nurse advised the patients about the importance of avoiding negative thoughts that lead to self-depressing.	Not done	77	65.8	Not done
		Done poorly	26	22.2	
		Done properly	14	12.0	
<i>M.s. ± SD</i>		1.46±0.701			
9	The nurse instructed the patient about the important of visiting the professional health counselor as necessary.	Not done	59	50.4	Not done
		Done poorly	43	36.8	
		Done properly	15	12.8	
<i>M.s. ± SD</i>		1.62±0.703			

"(M.s.) Mean of score, (SD) Standard deviation, Level of Assessment (Not done [M.s.= 1-1.66], Done poorly [M.s.=1.67-2.33], Done properly [M.s.=2.34-3])"

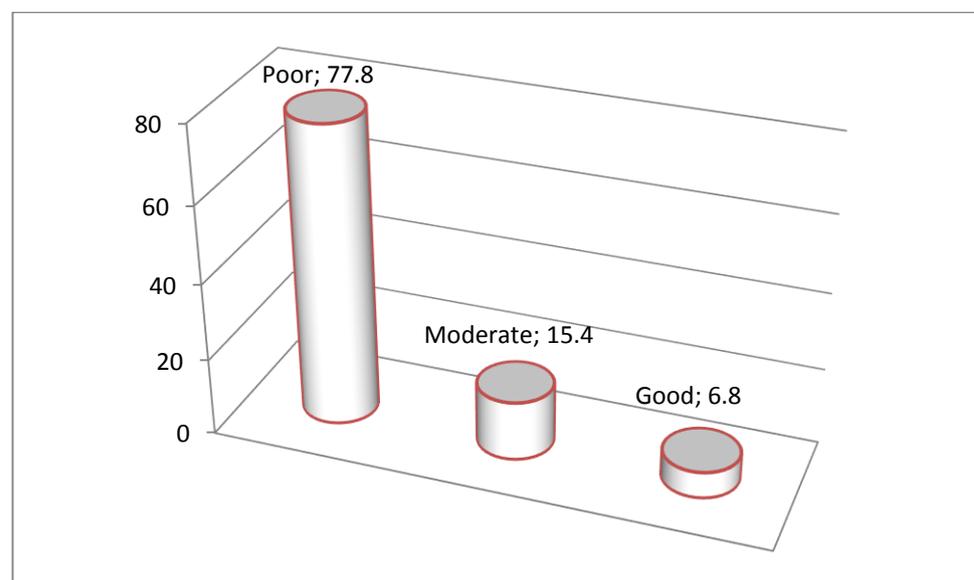
According to statistical analysis of mean, this table show that the nurses expressed not done responses regards practices related to improving the self-confidence and sexual functioning for patients undergoing uterine fibroid surgery at all items of the scale.

**Table 4.3.8: Overall Nurses Practices related to Improving the Self-Confidence and Sexual Functioning**

Weighted	Freq.	%	M ± SD
Poor	91	77.8	13.02±4.052
Moderate	18	15.4	
Good	8	6.8	
<i>Total</i>	117	100.0	

**M: Mean for total score, SD: Standard Deviation for total score  
(Poor= 9-15, Moderate= 16-21, Good= 22-27)**

The analysis of practices related to improving the self- confidence and sexual functioning for patients undergoing uterine fibroid surgery was demonstrated at Mean ± SD=13.02±4.052; and according to the study criteria, the nurses expressed a poor level of practices ( $n=102$ ; %=87.2).



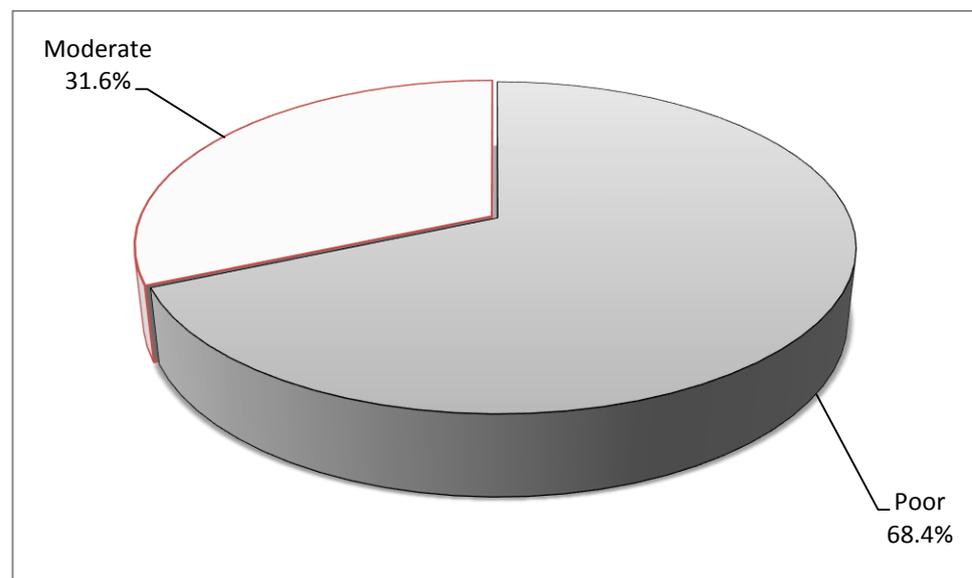
**Figure (4.9) Practices related to Improving the Self- Confidence and Sexual Functioning**

**Table 4.3.9: Overall Nurses Practices concerning postoperative nursing care for Patients Undergoing Uterine Fibroid Surgery**

Weighted	Freq.	M ± SD
Poor Practices	80	56.72±6.025
Moderate Practices	37	
<i>Total</i>	117	

M: Mean for total score, SD: Standard Deviation for total score  
(Poor= 35-58, Moderate= 59-82, Good= 83-105)

The analysis of practices related to post-operative nursing care for patients undergoing uterine fibroids surgery was demonstrated at Mean ± SD=56.72±6.025; and according to the total mean of score, the nurses expressed a poor level of practices ( $n=80$ ; %=68.4).



**Figure (4.10) Practices related to Post-Operative Nursing Care for Patients Undergoing Uterine Fibroids Surgery**

#### 4.4. The relationship between Nurses' knowledge related to Discharge Instructions and their Socio-demographic Information

**Table 4.4.1: Significant Differences between Nurses' Knowledge and their Age ( $n=117$ )**

Age Variables	Source of variance	Sum of Squares	d.f	Mean Square	F	$p \leq 0.05$
Nurses Knowledge	Between Groups	.038	3	.013	0.416	0.742
	Within Groups	3.453	113	.031		
	Total	3.491	116			
<i>Assessment = No Significance</i>						

d.f: Degree of freedom, F: F-statistic, No-sig: No Significance

This table shows that there are no-significant differences in nurses' knowledge related to discharge instructions for patients undergoing uterine fibroids surgery with regard to age at  $p\text{-value} > 0.05$ .

**Table 4.4.2: The relationship between between Nurses' Knowledge and their Address ( $n=117$ )**

Address Variables		Mean	SD	t-value	d.f	$p \leq 0.05$
Nurses Knowledge	Urban	1.4195	0.17797	0.843	115	0.179
	Rural	1.3885	0.16033			
<i>Assessment = No Significance</i>						

SD: Standard deviation, t: t-test, d.f: Degree of freedom, Sig: Significance, p: Probability value, No-sig.: Not significant.

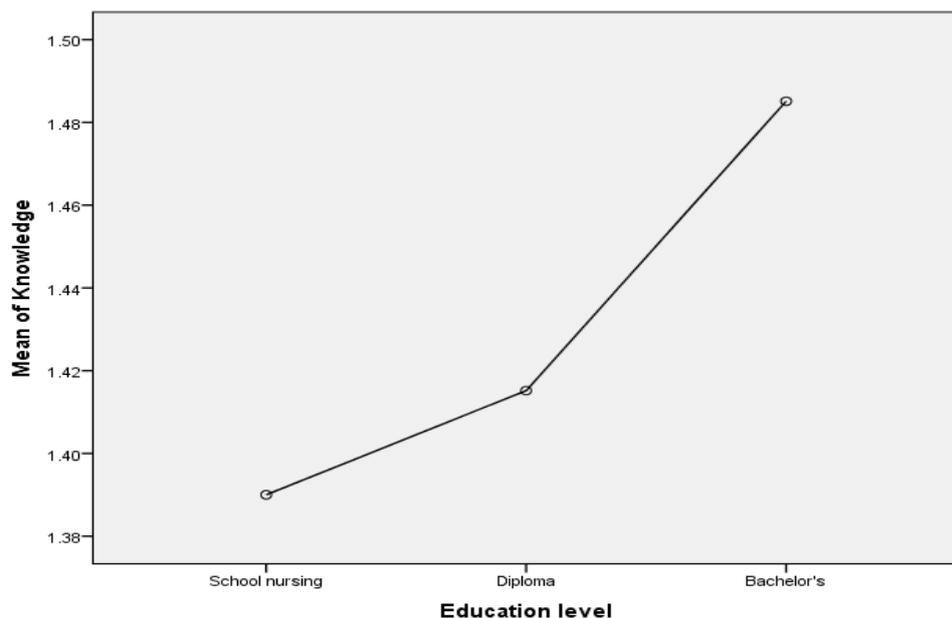
Table shows that there are no-significant differences in nurses' knowledge related to discharge instructions for patients undergoing uterine fibroids surgery with regard to address at  $p\text{-value} > 0.05$ .

**Table 4.4.3: The relationship between between Nurses' Knowledge and their Education Level ( $n=117$ )**

Education Variables	Source of variance	Sum of Squares	d.f	Mean Square	F	$p \leq 0.05$
Nurses Knowledge	Between Groups	.196	2	.098	3.392	0.037
	Within Groups	3.295	114	.029		
	Total	3.491	116			
<i>Assessment = Significance</i>						

d.f: Degree of freedom, F: F-statistic, Sig: Significance

Findings demonstrated that there are significant differences in nurses' knowledge related to discharge instructions for patients undergoing uterine fibroids surgery with regard to education level at  $p\text{-value} < 0.05$ .



**Figure (4.11) Distribution of Knowledge according to Education Level**

**Table 4.4.4: The relationship between between Nurses' Knowledge and their Years of Experience (n=117)**

Experience Variables	Source of variance	Sum of Squares	d.f	Mean Square	F	$p \leq 0.05$
Nurses Knowledge	Between Groups	.331	3	.110	3.941	0.010
	Within Groups	3.160	113	.028		
	Total	3.491	116			
<b>Assessment = Significance</b>						

*d.f: Degree of freedom, F: F-statistic, Sig: Significance*

Findings illustrated that there is significant relationship between the years of nurses' experience in hospital and their knowledge related to discharge instructions for patients undergoing uterine fibroids surgery with regard to years of experience at  $p\text{-value} < 0.05$ .

**Table 4.4.5: The relationship between Nurses' Knowledge and their Years of Experience in Maternal Surgical Wards (n=117)**

Experience Variables	Source of variance	Sum of Squares	d.f	Mean Square	F	$p \leq 0.05$
Nurses Knowledge	Between Groups	.102	2	.051	1.713	0.185
	Within Groups	3.389	114	.030		
	Total	3.491	116			
<b>Assessment = No Significance</b>						

**d.f: Degree of freedom, F: F-statistic, No-sig: No Significance**

Findings illustrated that there is no-significant relationship between the years of nurses' experience in maternal surgical wards and their knowledge related to discharge instructions for patients undergoing uterine fibroids surgery with regard to years of experience in maternal surgical wards at  $p\text{-value} > 0.05$ .

**Table 4.4.6: The relationship between Nurses' Knowledge and their Work Shift ( $n=117$ )**

Work Shift Variables		Mean	SD	t-value	d.f	$p \leq 0.05$
Nurses Knowledge	Morning	1.4230	0.17816	1.577	115	0.102
	Evening	1.3563	0.13953			
<i>Assessment = No Significance</i>						

SD: Standard deviation, t: t-test, d.f: Degree of freedom, Sig: Significance, p: Probability value, No-sig.: Not significant.

Findings showed that there are no-significant differences in nurses' knowledge related to discharge instructions for patients undergoing uterine fibroids surgery with regard to work shift at  $p\text{-value} > 0.05$ .

**Table 4.4.7: The relationship between Nurses' Knowledge and their Training Courses ( $n=117$ )**

Training Courses Variables		Mean	SD	t-value	d.f	$p \leq 0.05$
Nurses Knowledge	No	1.3332	0.10516	10.782	115	0.010
	Yes	1.6029	0.15851			
<i>Assessment = Significance</i>						

SD: Standard deviation, t: t-test, d.f: Degree of freedom, Sig: Significance, p: Probability value, Sig.: Significant.

Findings showed that there are significant differences in nurses' knowledge related to discharge instructions for patients undergoing uterine fibroids surgery with regard to training courses at  $p\text{-value} < 0.05$ .

**Table 4.4.8: The relationship between Nurses' Knowledge and their Sources of Knowledge (n=117)**

Sources of knowledge Variables	Source of variance	Sum of Squares	d.f	Mean Square	F	$p \leq 0.05$
Nurses Knowledge	Between Groups	.016	3	.005	.170	0.917
	Within Groups	3.475	113	.031		
	Total	3.491	116			
<i>Assessment = No Significance</i>						

d.f: Degree of freedom, F: F-statistic, No-sig: No Significance

Findings illustrated that there are no-significant differences in nurses' knowledge related to discharge instructions for patients undergoing uterine fibroids surgery with regard to sources of knowledge at  $p\text{-value} > 0.05$ .

#### 4.5. The relationship of Nurses' Practices related to Post-Operative Nursing Care with regard to Nurses' Socio-demographic Information

**Table 4.5.1: The relationship between Nurses' Practices and their Age (n=117)**

Age Variables	Source of variance	Sum of Squares	d.f	Mean Square	F	$p \leq 0.05$
Nurses Practices	Between Groups	.145	3	.048	1.654	0.181
	Within Groups	3.293	113	.029		
	Total	3.438	116			
<i>Assessment = No Significance</i>						

d.f: Degree of freedom, F: F-statistic, No-Sig: No Significance

Table shows that there are no-significant differences in nurses' practices related to post-operative nursing care

for patients undergoing uterine fibroids surgery with regard to age at  $p$ -value  $>0.05$ .

**Table 4.5.2: The relationship between Nurses' Practices and their Address ( $n=117$ )**

Address Variables		Mean	SD	t-value	d.f	$p \leq 0.05$
Nurses Practices	Urban	1.6059	0.16187	1.599	115	0.413
	Rural	1.6638	0.19561			
<i>Assessment = No Significance</i>						

SD: Standard deviation, t: t-test, d.f: Degree of freedom, Sig: Significance, p: Probability value.

Table shows that there are significant differences in nurses' practices related to post-operative nursing care for patients undergoing uterine fibroids surgery with regard to address at  $p$ -value  $<0.05$ .

**Table 4.5.3: The relationship between Nurses' Practices and their Education Level ( $n=117$ )**

Education Variables	Source of variance	Sum of Squares	d.f	Mean Square	F	$p \leq 0.05$
Nurses Practices	Between Groups	.007	2	.003	.110	0.041
	Within Groups	3.431	114	.030		
	Total	3.438	116			
<i>Assessment = Significance</i>						

d.f: Degree of freedom, F: F-statistic, No-sig: No Significance

Findings demonstrated that there is a significant difference in nurses' practices related to post-operative nursing care for patients undergoing uterine fibroids surgery with regard to education level at  $p$ -value  $>0.05$ .

**Table 4.5.4: The relationship between Nurses' Practices and their Years of Experience ( $n=117$ )**

Experience Variables	Source of variance	Sum of Squares	d.f	Mean Square	F	$p \leq 0.05$
Nurses Practices	Between Groups	.255	3	.085	3.019	0.033
	Within Groups	3.183	113	.028		
	Total	3.438	116			
<i>Assessment = Significance</i>						

d.f: Degree of freedom, F: F-statistic, No-sig: No Significance

Findings illustrated that there are significant differences in nurses' practices related to post-operative nursing care for patients undergoing uterine fibroids surgery with regard to years of experience at  $p\text{-value} < 0.05$ .

**Table 4.5.5: The relationship between Nurses' Practices and their Years of Experience in Maternal Surgical Wards ( $n=117$ )**

Experience Variables	Source of variance	Sum of Squares	d.f	Mean Square	F	$p \leq 0.05$
Nurses Practices	Between Groups	.053	2	.026	.892	0.037
	Within Groups	3.385	114	.030		
	Total	3.438	116			
<i>Assessment = Significance</i>						

d.f: Degree of freedom, F: F-statistic, No-sig: No Significance

Findings illustrated that there are a significant differences in nurses' practices related to post-operative nursing care for patients undergoing uterine fibroids surgery with regard to years of experience in maternal surgical wards at  $p\text{-value} > 0.05$ .

**Table 4.5.6: The relationship between Nurses' Practices and their Work Shift ( $n=117$ )**

Work Shift Variables		Mean	SD	t-value	d.f	$p \leq 0.05$
Nurses Practices	Morning	1.6342	0.17086	1.879	115	0.290
	Evening	1.5557	0.16749			
<i>Assessment = No Significance</i>						

SD: Standard deviation, t: t-test, d.f: Degree of freedom, Sig: Significance, p: Probability value, No-sig.: No Significant.

Findings showed that there are no-significant differences in nurses' practices related to post-operative nursing care for patients undergoing uterine fibroids surgery with regard to work shift at  $p\text{-value} > 0.05$ .

**Table 4.5.7: The relationship between Nurses' Practices and their Training Courses ( $n=117$ )**

Training Courses Variables		Mean	SD	t-value	d.f	$p \leq 0.05$
Nurses Practices	No	1.6084	0.20919	0.495	115	0.043
	Yes	1.6258	0.15564			
<i>Assessment = Significance</i>						

SD: Standard deviation, t: t-test, d.f: Degree of freedom, Sig: Significance, p: Probability value.

Findings showed that there are significant differences in nurses' practices related to post-operative nursing care for patients undergoing uterine fibroids surgery with regard to training courses at  $p\text{-value} < 0.05$ .

**Table 4.5.8: The relationship between Nurses' Practices and their Sources of Knowledge (n=117)**

Sources Variables	Source of variance	Sum of Squares	d.f	Mean Square	F	$p \leq 0.05$
Nurses Practices	Between Groups	.145	3	.048	1.654	0.181
	Within Groups	3.293	113	.029		
	Total	3.438	116			
<i>Assessment = No Significance</i>						

d.f: Degree of freedom, F: F-statistic, No-sig: No Significance

Findings illustrated that there are no-significant differences in nurses' practices related to post-operative nursing care for patients undergoing uterine fibroids surgery with regard to sources of knowledge at  $p\text{-value} > 0.05$ .

**Table 4.6: Statistical Relationship between Nurses Knowledge and their Practice**

<b>Correlation Test</b>					
<b>Practices</b>					
<b>Knowledge</b>	<i>Spearman's rho</i>		0.048	Result	
	<i>Sig. (2-tailed)</i>		0.004	Positive	
	<i>N</i>		117		
<b>Liner Regression Test</b>					
<b>Knowledge Vs. Practices</b>	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
	1.320	.045	-.025-	29.140	.000

Findings exhibit there were positive correlation between level of knowledge and practices by using correlation test ( $r=0.048$ ;  $p=0.004$ ). As well as, the findings confirmed that simple linear regression test indicates that significant effect of nurses' knowledge on their practices ( $p=0.000$ ).

***Chapter Five***

***Discussion of the***

***Results***

## **Chapter Five**

### **Discussion of the Results**

The chapter of discussing the results of the study is one of the most important chapters in scientific research. The discussion of the results takes place after the data is statistically analyzed and interpreted, as it is defined as a process that aims to provide a descriptive explanation of the significance of the results that is reached by the researcher during the completion of the study.

In this chapter, the researcher shows the results of the study in a systematic, organized and clear manner so that they can be benefited from and understood by comparing the results which is reached in the study with the results of previous studies that deal with the same or similar subject in a way that is understandable to the reader without any equivocation or ambiguity.

#### **5.1. Discussion the Demographical data of Nurses**

The demographic data of the nurses who working in surgical maternal wards at Babylon hospitals and were chosen as a sample for the study that are discussed in this chapter are age, address, educational level, year of experience in hospitals, years of experience in maternal surgical wards, work shift, training sessions and sources of knowledge.

Regarding the age parameter, the table (4-1) show the highest percentage of age group were among nurses at less than 30 years' old with proportion about (39.3%) while the lowest percentage was among nurses in age group more than 50 years' old at (8.5%), this results matching with the

outcome of study performed at Amritsar city in state of Punjab/ India by (Kaur, 2018) to evaluate the knowledge of nursing staff about cervical cancer and how the nurse can deal with patient who are suffer from this disease, where the result of kaur study indicate the highest percentage of nurses among age group less than 30 years old at (63.3%).

In concerning the residence, the highest rate of nurses' address was among they are living in urban area at (74.4%), this finding do not compatible with the result of study conducted in Egypt/ university of Ain Shams at nursing technical institute, college of nursing in order to determine the nursing student knowledge and attitude regarding uterine malignancy and fibroids by (Amal et al., 2018), where their results denoted that the higher percentage of nurses' residence were among nursing students who are living at rural region at (78.50%).

According to the researcher's opinion on the demographic characteristics of the sample who are participating in the study, the results showed that the highest percentage of nurses are under the age of thirty years because a large proportion of the nursing team that is works in the hospitals which is direct contact with the patients in Babylon Governorate are young group, because most nurses when they are presented The elderly resort to work within the primary health care sectors, so their numbers are few in hospitals. As well as, most of them lived within urban areas, according to the geographical location of the health institutions in which they work, as it is near to their place of residence.

As well as the table (4-1) express the level of education for nurses who are participated in this study as high proportion among nurses group with secondary school of nursing at (70.1%), from the statistical aspect, this result is consistent with the result of a study that was conducted by

(Jasim AL-Taee & Al-Mukhtar, 2015) in two hospitals located at Mosul city (Al Batool and AL-Khansaa Teaching Hospitals) to identify the level of nurses' knowledge and their practices about used the laparoscopy in gynecological disease, clarify the defect during of nurses' knowledge in gynecological laparoscopy and explain what the difference between demographic characteristics of nurses and their knowledge and practices. Where their results indicated the higher level of nurses' education was among high school of nursing at (56.4%).

In Iraq in the previous periods, the educational level for the most nurses in Iraq was secondary nursing school due to the lack of the educational institutions that grant a nursing certificate. subsequent, many nursing institutes were opened this lead to change the nurses' educational level and began to improve towards diplomas. In recent years, the Ministry of Higher Education began establishing nursing colleges of nursing in some provinces. Then, many capital owners and investors started opening private colleges of nursing, this matter will play a role in increasing the number of nurses who hold a bachelor's degree in the future.

About the period of nurses working in hospitals which are chosen as a place for doing this study, the high percent were among the nurses with years' experience in hospitals less than 5 years at (38.5%), this results agree with the result of study carried out in order to measure the knowledge, attitudes, and practice of nurses regarding prevention of cervical cancer in rural health centers III and IV in the Northern Uganda of Acholi sub-region by (Obol et al., 2021). In other hand the years of experience in maternal surgical wards, the table (4-1) show the higher percentage were among nurses with work period at this area less than 5 years, statistically this findings corresponding with the result of study

conducted in the central of Tanzania at Dodoma Region to assess some factors that influencing in the nurses' knowledge and competence in the prevention and management of postpartum hemorrhage at maternal wards by (Angelina et al., 2019), the results of the study which is doing by this researcher reveal the highest percentage in regarding the work period in maternal wards is less than 5 years at (55.2%).

The period of work experience of the nurses who are participating in the study in the hospital and the women surgical wards was the highest among those who have work experience less than five years. The presence of this result according to the researcher's opinion is attributed to several reasons, including the existence of the medical gradation law in the Iraqi health system, this law which is requires the nurses after completing a two-year service in the hospitals to going to the primary health care sectors to accomplished their service which is assigned to them in those sectors.

As well as, the continuous transfers of nurses which are ordinarily not subject to logical justifications, whether it is between different places inside the same hospital or the transfer is external between different hospitals. This matter is having a negative impact on the quality of care, because the longer the nurse's staying in a place is met by an improvement in his clinical performance and mastery of the nursing care that provides to patients in this place.

The results in table (4-1) express the morning shift is a highest percentage for the type of nurses working shift in Babylon hospitals which are chosen as place for conducted this study, the percent was (82.9%), the results of this study agree with the outcome of the study performed by (Alsaide et al., 2017) to determine the perception of nurses toward nursing care for patients with uterine polyps undergoing for uterine laparoscopic

surgery at two hospitals in Alexandria province/ Egypt, their results indicated the highest proportion of nurses regarding work shifting was (71.5%) among nurses who are working in mourning period for two hospitals who are selected for conducted this study.

The number of nurses who are work in the morning shift is often more than the number of nurses in the evening period in the women's surgery wards due to multiple reasons, one of this reasons is the number of patients who are admission for operations rom in the morning period is greater than those who are entering in the evening shift, because the work approach in the Iraqi hospitals makes the evening period is limited to performing only emergency surgeries that are admitted to the hospital, the researcher find that the number of women who are undergoing for uterine fibroids surgery is very few for this matter the number of nurses who are participating in the study among the evening duty was few if compared in the morning shift.

Regarding the training course about the nursing care for patients with uterine fibrosis, the results showed that the largest percentage of nurses did not take any training courses on this subject with an estimated percentage (70.9%), this finding concur with the result of study conducted by (Mahmoud et al., 2021) in order to identify the impact of educational session on the performance of nurses who are working in gynecological field in pre and post hysterectomy surgery, where their outcome indicated the majority of nurses who are participated in the study don't receive any training course about this subject at (92.5%).

There is a clear shortcoming from the Ministry of Health in the matter of continuing education, as it did not address how to provide nursing care based on effective scientific methods to patients suffering from uterine

fibroids as one of the topics of the training and educational curriculum that is supposed to be established by the Ministry of Health / Training and Human Development Center (Unit Continuing Nursing Education) Therefore, the highest percentage of nurses who participated in the study did not receive any educational program on this subject

Regarding the source of knowledge that the nurses gained about the uterine fibrosis, their answers is a varied between the different sources of knowledge. The results in table (4-1) showed that the highest percentage of knowledge acquisition for nurses who are participating in the study was from colleagues with a rate of (72.6%) while the lower rate were among the source of knowledge which is obtain from library (2.6%).

## **5.2. Discussion the Nurse Knowledge regarding Discharge Instructions for Patients Undergoing Uterine Fibroid Surgery**

Discharge instructions for patients are the important complementary principles of health care, which is the health guide that the patient is supposed to follow when leaving the hospital to ensure the patient's safety and not to be exposed to various complications that may affect his health (Hunt- O'Connor et al., 2021). In this part, the results of the study will be discussed about nurses' knowledge of discharge instructions for patients who underwent uterine fibroid surgery before discharge from hospital

Table (4-2-1) dealing with nurses' knowledge about home care for patients who underwent to uterine fibroid surgeries after their discharge from the hospital. The results showed that the assessment of all questions was poor. On the other hand, the results in table (4-2-2) showed that the greatest percentage of nurses' knowledge about discharge instructions regarding patients home care was poor.

Home care is the supportive care that is available in the home for the correct continuation and maintenance of daily activities. Home care is often called "home health care" or basic care. It includes eating, bathing, monitoring the operation wound and doing exercises that suit the patient's health condition in order to improve breathing and blood circulation. Therefore, it is very important for the nurses to have good knowledge in this aspect to provide information to patients in a correct and scientific manner.

The table (4-2-3) revolved around the nurses' knowledge toward the discharge instructions for pain care in the event the patient suffers from it or even to avoid the occurrence of pain. The results in this table showed that the nurses' knowledge was poor as assessment for all questions except for two questions that were moderate. Likewise, the overall of the nurses' knowledge about patient pain management in table (4-2-4) were poor as higher percent and some of nurses with moderate knowledge while the little nurses with highest knowledge level.

The role of the nurse must be present and effective in guiding the patient about how to avoid pain when leaving the hospital and going back to home. Pain management is one of the important matters that the patient must doing by himself or through helping from one of the family members at home in order to complete the process of restoring health after the performed the surgical intervention. Pain care focuses on assistant the patients to relief the symptoms of pain and stress caused by surgical intervention and taking the treatment prescribed by the doctor regularly. Through the results reached by the researcher, which showed a significant weakness in the nurses' knowledge on this subject it is very negative and is

considered a gap in the role of the nursing team towards the patient home care. These results, which were presented in the above tables that deal with the nurses' knowledge about the discharge instructions for patients who undergo uterine fibroid surgery, showed a weakness in the nurses' knowledge, consistent with the result of a study conducted in Baghdad by (Mohammad et al., 2016) to assess the nurses' knowledge about discharge instructions for patients in three heart centers in Baghdad governorate, the result of study showed the knowledge of nurses were low.

Table (4-2-6) express the results of overall Knowledge of nurses related to daily living activities for patients undergoing uterine fibroid surgery, the results in this table reveal which is majority of nurses with poor knowledge regarding this domain. As well as, the findings in table (4-2-8) that is dealing the overall nurses knowledge related to healthy diet for this patients, also the results in this table indicated there are a low in the level of nurses' knowledge related the appropriate healthy food pattern for the patients targeted in this study. These results are consistent with the finding of a study conducted at the British Teaching Hospital by (Atwal, 2002), the design which is used was a case study to highlight the nurses' perception about the discharge plan in acute health care. This study found that there is a weakness in the nurses' perception of the aspects related to the daily living activities and practices that the patient must follow after discharge from the hospital, as well as advice on the importance of following the correct diet system by patients in the days which is following the discharging from the hospital.

The outcomes in table (4-2-9) showed the assessment of the overall nurses Knowledge related to discharge instructions as whole and for each aspects for patients underwent surgery of removing fibroids from the

uterus, the results in this table clarified the majority of nurses who are participated in this study with poor knowledge in regard the discharge instruction and little number of them with moderate knowledge level while, no anyone with good level of knowledge. This result corresponding with the result of study conducted to explain the understanding the nursing team to their action and role in providing discharge advices by (First-Williams, 2019) in Walden University at Minneapolis city in Minnesota state, the results of this study revealed there are obstacles regarding understanding the nursing role in providing discharge education for patients concerning to inadequate nurses' knowledge about this important subject. On other hand, there are results of study conducted at the Sudan Heart Institute in Khartoum state by (Jarelnape, 2021) to clarify the knowledge of nurses about the discharge instructions for patients after doing the cardiac surgery don't agree with the result of our study, where the finding of (Jarelnape, 2021) indicated the majority of nurses with good overall nurses' knowledge about the discharge plan.

From the researcher's point of view, the results that were reached in this study, which is indicate a very lowering in the nurses' knowledge of the discharge instructions for patients who had removal of the uterine fibroids surgery are considered a negative thing and a big gap in the integration of nursing care provided to these patients. The reason for this is due to several factors, including the educational level of the nurses who are participating in the study, as well as the lack of the reliance the health institutions on the outpatient plan program and the encouragement of health care providers to applied this program and work by it because of its great benefits for improving the patients' health.

### **5.3. Discussion the Nurses Practices Concerning Postoperative nursing care for Patients Undergoing Uterine Fibroid Surgery**

Post-operative nursing care is the provision of the basic patients' needs after an operation to ensure that all health needs are met. Nursing services include providing support directly during the postoperative period. The services which is provided by the nursing team should appropriate to the patient's physiological condition, so the postoperative period always requires a health care with a high level of quality (Zontag et al., 2022).

The results in table (4-3-1) express the practices of nurses related to treatment giving and monitoring patients health condition in post-operative period, in this table the findings were done properly for two questions only, while done poorly and not done for five question for both. Table (4-3-2) deals with the results of overall nurses practices related to treatment giving and monitoring patients health, the highest percentage of nurses were with moderate level of practices, less than that with poor level and little number of nurses with good level of practices. This result coincidence with the findings of study performed in Nineveh Governorate at six teaching hospitals to identify the knowledge and practice of nurse's toward pre and postoperative care by (Hameed & Mohammed, 2018). The result of this study indicate the practices of nurses regarding postoperative care which is included treatment giving and checking body vital sings within range of acceptable level as highest percentage.

The practices of nurses related to the examination of urinary elimination were addressed through the table (4-3-3), the results in this table showed the assessment of for question were (not done) while the another two question were (Done poorly). The overall of nurses practices

about checking or give importance for the urinary elimination for patient with uterine fibroid surgery in table (4-3-4), the results in this table indicated the overall of knowledge was poor for majority of nurses who are participated in this study. The results in this tables concur with the outcomes of study carried out in Iraq at Erbil governorate to explain the quality of instantaneous postoperative nursing intervention for patients underwent to surgeries in the private and public hospitals by (Ali, 2020), the results of this study indicated the nurse with poor practices in regard the monitoring the intake and output for after doing surgical procedures.

In Table (4-3-5) presented the results related to the practice of nurses about monitoring the functions of the digestive system and the problems that may affect this system after the surgery of removing of fibroids from the uterus, the practices of nurses about this domain ranged between (not done) for five items and (done poorly) for two items. The overall of nurses practices related monitoring GIT function in table (4-3-6) were poor practices as highest proportion.

From the researcher's point of view, this is a major shortcoming in the nursing care which is provided to the patients after the operation in terms of monitoring the activities and functions of the digestive system. After the surgery, the patient may experience laziness in the intestines, which is a common problem especially after abdominal surgeries due to the side effects of the anesthetic drugs and the lack of food and drink entering the digestive system and sometimes the surgeon makes a mistake during the operation, in addition to the lack of movement of the patient in the period following the operation.

The defect in the nurses' practices is due to several reasons, including the educational level of the nurses who is shared in the study most of whom are within the secondary nursing level, as well as the lack of workshops and training programs which is preparing by the Ministry of Health for the nurses and health care providers in this aspect. The absence or adoption of a scientific guide for nurses that includes fixed work steps that health care providers follow when dealing with patients after leaving the operating room.

The table (4-3-7) contain the items related to nurses' practices about improving and supported the self-confidence and sexual function for women underwent to surgical intervention in order to remove uterine fibroid, the results in this table indicated the nurses' practices for all items had (not done) as final assessment according mean of score. In table (4-3-8) express the overall of nurses practices about enhancement self-confidence and sexual function for patients, the results in this table indicated the majority of nurses with poor practices related this subject. This results harmonize with the findings of study performed by (Abd Al-Muhsen & Abdulwahid, 2021) at eight teaching hospitals in Baghdad city in order to determine the psychological backing and made a discharge plan from the hospital which is provided by nursing team for woman underwent for hysterectomy, where the result of this study showed there are a lacking in psychological support should be provided by nurses for this women in postoperative period as a part of nursing care in the hospitals.

After a woman undergoes this type of surgery, they need a lot of psychological support from nurses and other health care providers in order to boost her self-confidence and avoid any psychological disorders may experience such as depression or loss of interest and decreased libido.

Therefore, the nurse must have a great deal of awareness and scientific competence to provide health advice to patients, as well as increase self-confidence through continuous support.

Finally, the table (4-3-9) express the overall of nurses practices about postoperative nursing care for patient underwent for removed uterine fibroid surgery. The results in this table showed the majority of nurses with poor practice regarding postoperative care, this results corresponding with the results of study doing by (Radhi & Tawfiq, 2016) to identify the level of nurses' practice regarding care of patient with fracture treated by external fixation at Al-Zahrawi surgical hospital in Nissan Governorate. The results revealed the nurses who are participated in the study with low practices level regarding postoperative nursing care.

#### **5.4. Discussion the Differences in Knowledge of Nurse related to Discharge Instructions and their Socio-demographic Information**

In this part will be discuss the relationship between nurses' knowledge about discharge instructions for patients who had uterine fibroids removed and their demographic data based on the P value.

In table (4-4) and its subsections, the relationship between nurses' knowledge about discharge instructions and their demographic data was reviewed. The results showed there are non-significant relationship for more demographic items as following (age, address, years of experience in maternal surgical wards, work shift and sources of Knowledge), while another demographic variable (education level, years of experience in hospital and training courses). This results agree with the finding of study doing by (Jarelnape, 2021) at the Sudan Heart Institute in Khartoum are

results of study to clarify the knowledge of nurses about the discharge instructions for patients after doing the cardiac surgery, the results of this study indicated there are non-significant relationship between some nurses' demographic characteristics and their knowledge about discharge plan.

### **5.5. Discussion the Differences in Practices of Nurse related to Postoperative nursing care and their Socio-demographic Information**

In this part will be discuss the relationship between practices of nurses' in postoperative period for patients who had uterine fibroids removed and their demographic data based on the P value.

In table (4-5) and its subsections, the relationship between the practices of nurses' about postoperative care for patient have surgical intervention for removing fibroid from the uterus and their demographic data was showed. The findings of this table indicated there are a significant relationship between nurses' practices in postoperative phase and their demographic characteristics for following (education level, years of experience in hospital, years of experience in maternal surgical wards and training courses), while another demographic data (age, address, work shift and sources of knowledge). This result coincide with the results of study aims to identify the level of competence and nursing practices for nursing team in terms of the extent to which they are compared with standards of the nursing activities in surgical wards about wound dressing in Medical City at three hospitals; (Baghdad Teaching Hospital, Al-Shahid Ghazi Hariri for surgical specialties, and nursing home hospital) by (Atiyah & Khudhur, 2012), the results of the study revealed there are significant relationship between nurses practices and their demographic

characteristics, while non-significant relationship related another demographic data.

### **5.6. Relationship between Nurses Knowledge regarding Discharge Instruction and their Practices about Postoperative Nursing Care.**

Table (5-6) express the relationship between nurses' knowledge about discharge advices and their practices in postoperative period for patient underwent uterine fibroid surgery. Depending on the correlation test and liner regression test, the finding reveal there are positive correlation between nurses' knowledge and practices. The result in this table corresponding with the findings of study carried out by (Ahmed et al.,2013) in Assiut University Hospital at department of general surgery in order to assess the nurses' knowledge and practice concerning postoperative care for patients with open cholecystectomy. The results of this study indicated there are a positive correlation between knowledge and practices for nurses who are participated in the study.

***Chapter Six***  
***Conclusions***  
***&***  
***Recommendations***

## **Chapter Six**

### **Conclusions & Recommendations**

#### **6.1. Conclusions**

This chapter which is considered the final chapter of the research, in this chapter the researcher presented the main conclusions after examining the data that are collected from the study sample statistically and debating in scientifically manner. The researcher used this data to draw the conclusions about the nurses' knowledge of discharge instructions and their practices in postoperative nursing care for women who had a fibroid removed from the uterus. The researcher provided a clear and concise overview of what was discovered during the steps and stages of this study. The following are the most significant conclusions for this study:

- 1- The largest percentage of nurses who participated in the study was within the age group of less than thirty years, most of whom lived in urban areas and held a secondary nursing school certificate as an educational level.
- 2- Related to the length of time the nurses which is spent in working at the hospitals that were approved as a place to conduct this study, as well as the gynecological surgery wards, the results showed that most of them are within the time period less than five years and most of them work within the morning shift.
- 3- The results of the study showed that the majority of the nurses who participated in the study were not exposed to any training program on how to provide post-operative nursing care and discharge instructions for patients who had a surgical intervention to remove uterine fibroids. On the other hand, the results indicated that the source of information for knowledge was gained from the colleagues

- 4- The results of the overall assessment indicated that the vast majority of nurses who are working in women's surgery wards and participated in the study had weak knowledge level about the discharge instructions, while a few of them had a moderate level of knowledge .
- 5- The nurses' practices regarding the nursing care which is provided in the postoperative period for patients undergoing uterine fibroid surgery was very weak, the results indicated that the majority of nurses who participated in the study did not have a good level of clinical practices that is based on the scientific principles.
- 6- Statistical analyzes for the data of a study sample revealed that there is no significant association between nurses knowledge about discharge advices for patients undergoing uterine fibroid surgery, and their demographic items (age, address, experience in maternal surgical wards, work shift and source of knowledge, while there is a relationship between another demographic data (educational level, years of experience in the hospital, training course) and the level of knowledge of nurses about the discharge instructions.
- 7- The findings of the study indicate there are a significant association between the practices of nurses in post-operative nursing care for patient undergoing to the surgical intervention for the uterine fibroid and their demographic characteristics (level of education, years of experience in the hospital, years of experience in the maternal

surgical wards and training course), while from another side there are no relationship between (age, address, work shift and source of knowledge) and nurses' clinical practices for postoperative care.

- 8- Finally, the findings of the study indicate there are a significant association between the practices of nurses about post-operative nursing care and their knowledge about discharge instructions which is must be given for this patients before leaving the hospital to home.

## **6.2. Recommendations**

Recommendations are considering a basic and important demand in writing the scientific research, it is an essential part in expressing the suggestions made by the researcher to reach for the appropriate solutions to the problem that has been studied based on the main conclusions of the research . The recommendations made by the researcher in this study are:

- 1- The Ministry of Health is supposed to set fixed standards for a specific period of time to regulating the movement of nurses between the different departments in the hospital in order to give the nurses an opportunity to acquire sufficient clinical skill and knowledge.
- 2- One of the things that the Ministry of Health should focus on is to increase the educational level of the nursing staff by allowing the holders of the secondary nursing certificate to complete their diploma or bachelor's studies in educational institutions.
- 3- It is necessary for the Ministry of Health to work on organizing scientific and training workshops for nurses working in surgical wards to develop their skills in postoperative nursing care.

- 4- Increasing the cooperation between doctors and nurses in order to provide discharge instructions to patients in a scientifically correct manner that is commensurate with their health status.
- 5- Work to implement the cooperation between nurses and doctors in the emergency department by holding workshops and training seminars in health institutions that encourage this aspect in order to provide integrated health care for patients.
- 6- Preparing the training programs and scientific workshops that help in increasing the clinical practices and skills of nurses to deal with the patient after the surgical operation to remove fibroids from the uterus and provide better nursing care.
- 7- It is possible to activate the principle of cooperation between the Ministry of Health and the Ministry of Higher Education to allow the academic staff to hold a scientific lecture that would increase the nurses' knowledge and practices about dealing with patients undergoing uterine fibroid surgery.

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*Appendix 1*

*Questionnaire*

بسم الله الرحمن الرحيم

حضرة ..... المحترم

نظرا للمكانة العلمية المرموقة لديكم يرجى التفضل بالمساهمة في تقييم

الاستبيان المستخدم في البحث الموسوم

(( تقييم الرعاية التمريضية بعد الجراحة وتعليمات الخروج للنساء اللواتي

يخضعن لجراحة تليف الرحم في محافظة بابل ))

(( Evaluation of Post-Operative Nursing Care and  
Discharge Instructions for Women Undergoing  
Uterine Fibroid Surgery in Babylon Governorate ))

ولكم فائق الشكر والاحترام .....

- الاسم:

- اللقب العلمي:

- سنوات الخبرة:

- مكان العمل:

- التاريخ:

- التوقيع:

طالبة الدكتوراه

مريم عبد الكريم العيبي

كلية التمريض – جامعة بابل

فرع تمريض الام والوليد

**Evaluation of Post-Operative Nursing Care and Discharge Instructions for Women Undergoing Uterine Fibroid Surgery in Babylon Governorate**

**Part One: Demographic Data of Nurses**

**1. Age**

**2. Address**

Rural  Urban

**3. Level of academic achievement**

Secondary Nursing School  Diploma

Bachelor Degree and above

**4. Years of experience in Hospital**

1 – 5 years  5 – 10 years

11 – 15 years  15 years and Over

**5. Years of experience in maternal surgical wards**

1 – 5 years  6 – 10 years

11 – 15 years  15 years and over

**6. Work shift**

Morning  Evening

**7. Training sessions regarding post-operative care and discharge planning**

Yes  No

**8. Sources of knowledge**

Colleagues  Library  
  
Scientific website  Social media

**Part Two: Nurses' knowledge regarding discharge instructions for patients undergoing uterine fibroid surgery**

**First Aspect: Nurses knowledge regarding home care**

<b>Items regarding home care</b>	<b>Know</b>	<b>Uncertain</b>	<b>Don't know</b>
1- After the uterine fibroids surgery, the patient needs to rest at home for a period of 3 to 7 days after the surgery.			
2- It is very important to instruct the patient to take all prescribed medications as directed by the doctor.			
3- Continued coughing and deep breathing exercises are very important for the patient to improve the functioning of the lungs.			
4- If the surgery is performed by laparoscopy, the patient will have several small incisions in his abdomen, it is necessary to keep these incisions clean and change the dressings according to the instructions.			
5- If the patient has stitches inside the vagina, do not worry, they will absorb over time and will not need to be removed.			
6- Instruct the patient to the necessity to use sanitary pads to absorb any vaginal bleeding or secretions that may occur.			
7- The patient may have brownish secretions that last for up to 6 weeks, so there is no need to worry about that.			
8- The patient is advised to avoid using tampons or douches, as it can cause transmission of infection.			

**Second Aspect: Nurses knowledge regarding pain management**

<b>Items regarding pain management</b>	<b>Know</b>	<b>Uncertain</b>	<b>Don't know</b>
1- The cause of pain and discomfort in the patient is due to swelling inside the abdomen and the effects of the surgery.			
2- The patient should take pain reliever as indicated on the package or as directed by his health care provider.			
3- The patient may feel pain in the shoulder after the endoscopic surgery due to the gases used to expand the abdomen during the surgery, the pain may last for 7 days			
4- Educating the patient that the pain will gradually disappear day after day, so your need for painkillers should decrease.			
5- Hot water can be used when feeling pain and discomfort, and the patient is instructed not to use an electric blanket or heating pad.			
6- Warm compresses can be used on the abdomen to relieve pain			
7- Use of antibiotics as prescribed by the doctor, with the need not to stop them when symptoms improve			

**Third Aspect: Nurses knowledge regarding daily activities**

<b>Items regarding daily activities</b>	<b>Know</b>	<b>Uncertain</b>	<b>Don't know</b>
1- The patient is advised to avoid strenuous activities and exercises that require great effort.			
2- Instruct the patient to avoid carrying or lifting anything that weighs more than 10 pounds (5 kg) for at least 6 weeks after the operation.			
3- The patient should avoid lying down for long periods of time to avoid any complications.			
4- The patient should avoid lying down for long periods of time to avoid any complications.			
5- while walking or practicing some simple exercise, the patient should take periods of rest and not exert herself.			
6- The patient can do some light work such as washing dishes and cooking, but sweeping should be avoided because it can harm the patient and affect the surgical incision.			
7- If the patient is driving a car, should avoid this until she is completely recovered after the surgery.			
8- The patient is advised to resume sexual activity after 6 weeks of the surgery.			

**Fourth Aspect: Nurses knowledge regarding healthy diet**

<b>Items regarding healthy diet</b>	<b>Know</b>	<b>Uncertain</b>	<b>Don't know</b>
1- Preferable to eat nutritious foods that contain the necessary vitamins and minerals that will aid in the faster recovery of the surgery.			
2- The patient should eat foods that is rich in fiber such as whole grains, raw fruits and vegetables, and prunes.			
3- The patient is advised to drink about 6 to 8 cups of water per day to maintain the fluid level in the body.			
4- Vegetables and fruits recommended to be eaten to avoid constipation and indigestion.			
5- Avoid starchy foods that are difficult to digest, such as bread and pasta.			
6- Avoid eating foods that contain a high proportion of sugars, caffeine, and soft drinks, as they do not achieve any health benefit for the patient.			
7- Avoid eating fatty and fried foods that may lead to digestive problems and an increase in the patient's weight			
8- If the constipation persists, advise the patient to take a stool softener or a mild laxative.			

**Part Three: Practices of Nurses regarding Nursing Care for patient with Uterine Fibroid Surgery**

**First Aspect: Practices of nurses' regarding administering treatment and monitoring patient's health.**

<b>Items regarding administering treatment and monitoring patient's health</b>	<b>Done properly</b>	<b>Done poorly</b>	<b>Not done</b>
1. When the patient arrived from the operating theater to the ward, she were placed in a comfortable position and avoided the high fowler position and pressure below the knees or crosses of the legs.			
2. Measurement vital signs; palpate peripheral pulses, and note capillary refill.			
3. Inspect dressings of the surgical incision and perineal pads, noting color, amount, and odor of drainage.			
4. The nurse observed whether the vaginal bleeding was present and paid attention about the amount if it was as drops or excessive bleeding (soak the perineal dressing within an hour).			
5. Give treatment in an accurate manner, according to the doctor's prescription.			

6. Administer intravenous fluids and blood products as indicated.			
7. Giving pain reliever treatments immediately, as directed by your doctor.			
8. Turn the patient and encourage frequent coughing and deep-breathing exercises.			
9. Assist and instruct in foot and leg exercises and ambulate as soon as able.			
10. Encourage ambulation and active range-of-motion exercises when in bed to prevent thrombophlebitis and venous stasis			
11. Continuous observation of the patient's health and news in the event of swelling in the limbs or reports of sudden chest pain with shortness of breath.			
12. Helping and encouraging changing the patient's clothes frequently to enhance and maintain hygiene.			
13. Helping to change the patient's position frequently and using pillows to enhance comfort and relieve pain.			

**Second Aspect: Practices of Nurses regarding Checking Urinary Elimination**

<b>Items regarding Checking Urinary Elimination</b>	<b>Done properly</b>	<b>Done poorly</b>	<b>Not done</b>
1. The nurse observed the emptying pattern and monitored the amount of urine output?			
2. The nurse palpated the bladder to make sure the bladder is full or the patient is unable to urinate normally.			
3. The patient was provided with routine urine emptying procedures such as (privacy, normal position, running water in the pelvis, pouring warm water on the perineum).			
4. Putting a urinary catheter for a patient who is unable to empty urine normally?			
5. The nurse monitored and evaluated the characteristics of the urine, noting the color, clarity and smell.			
6. Has attention been paid to the cleanliness of the urinary catheter and to ensure its effectiveness after placing it?			

**Third Aspect: Practices of Nurses regarding Monitor Gastrointestinal Functions**

<b>Items regarding Monitor Gastrointestinal Functions</b>	<b>Done properly</b>	<b>Done poorly</b>	<b>Not done</b>
1. Administer antiemetic's to control nausea and vomiting according physician order.			
2. The nurse auscultated the bowel sounds, note abdominal distension and presence of nausea and vomiting.			
3. The nurse assist patient to sitting on the edge of the bed and walking.			
4. Monitor elimination and provide increased fluids and fiber to prevent constipation and straining.			
5. Restrict oral intake as indicated.			
6. Provide clear or full liquids and advance to solid foods gradually as tolerated.			
7. Administer medications: stool softeners, mineral oil, laxatives, as indicated.			

**Fourth Aspect: Practices of Nurses regarding Improving the Self-Confidence and Sexual Functioning**

<b>Items regarding Improving the Self- Confidence and Sexual Functioning</b>	<b>Done properly</b>	<b>Done poorly</b>	<b>Not done</b>
1. The nurse provide enough time to listen for the patient fears of and discuss about perceptions related to anticipated changes in her lifestyle.			
2. Assess the emotional stress of the patient and listen to her comments and provide an open environment during discussions.			
3. Provide accurate information about sexual health and reinforcing the information previously that is given.			
4. The nurse assessing the patient's information regarding sexual function and effects of surgical procedure on it.			
5. Providing an open environment for the patient by nursing team to discuss concerns about sexuality.			
6. Encourage the patient about the importance of sharing thoughts and concerns with partner.			
7. Instruct the patients about problem-solving for potential problems such as postponing sexual intercourse when fatigued, using other methods to express feelings and intimacy, utilize the positions that avoid pressure on the abdominal incision and applied the vaginal lubricant.			
8. The nurse advised the patients about the importance of avoiding negative thoughts that lead to self-depressing.			
9. The nurse instructed the patient about the important of visiting the professional health counselor as necessary.			

تقييم الرعاية التمريضية بعد الجراحة وتعليمات الخروج للنساء اللواتي يخضعن  
لجراحة تليف الرحم في محافظة بابل

الجزء الاول: المعلومات الديموغرافية

١- العمر

٢- السكن  مدينة  ريف

٣- مستوى التحصيل الدراسي  اعدادية  دبلوم  بكالوريوس فما فوق

٥- سنين الخبرة في المستشفى

من ١ الى ٥ سنوات  من ٥ الى ١٠ سنوات

من ١١ الى ١٥ سنة  أكثر من ١٥ سنة

٦- سنين الخبرة في ردهة الجراحة النسائية

من ١ الى ٥ سنوات  من ٥ الى ١٠ سنوات

من ١١ الى ١٥ سنة  أكثر من ١٥ سنة

٧- وردية العمل

صباحي  مسائي

٨- دورات تدريبية حول رعاية ما بعد الجراحة وتخطيط الخروج

نعم  لا

٩- مصادر المعرفة

الزملاء  مواقع علمية

المكتبة  التواصل الاجتماعي

الجزء الثاني: معارف الممرضات فيما يتعلق بتعليمات الخروج للنساء الذين خضعوا الى جراحة الأورام الليفية الرحمية

الجانب الأول: معارف الممرضات فيما يتعلق بالعناية المنزلية

لا اعرف	غير متأكد	اعرف	الأسئلة المتعلقة بالعناية المنزلية
			١- تحتاج المريضة بعد اجراء جراحة اورام الرحم الليفية الى الراحة في المنزل لمدة تتراوح بين ٣ إلى ٧ أيام بعد الجراحة.
			٢- مهم جدا ارشاد المريض الى تناول جميع الأدوية الموصوفة له حسب توجيهات الطبيب.
			٣- يعتبر استمرار السعال وعمل تمارين التنفس العميق مهمة جدا للمريض لتحسين عمل الرئتين.
			٤- في حالة اجراء الجراحة بواسطة الناظور سيكون لدى المريض عدة شقوق صغيرة في بطنه من الضروري المحافظة على نظافة تلك الشقوق نظيفة وتغيير الضمادات حسب التعليمات.
			٥- إذا كان لدى المريضة غرز داخل المهبل فلا داعي للقلق فسوف يتم امتصاصها بمرور الوقت ولن تحتاج إلى إخراجها.
			٦- ارشاد المريض الى ضرورة استخدام الفوط الصحية لامتناس اي النزيف المهلي أو الإفرازات من المحتمل ان تحدث
			٧- قد يحدث لدى المريض إفرازات بنية اللون تستمر لمدة تصل إلى ٦ أسابيع لا داعي للقلق من ذلك.
			٨- ينصح المريض بتجنب استخدام السدادات القطنية أو الدوش كونه من وسائل انتقال العدوى

الجانب الثاني: معارف الممرضات فيما يتعلق بالعناية بالألم

لا اعرف	غير متأكد	اعرف	الأسئلة المتعلقة بالعناية بالألم
			١- يعود سبب الألم وعدم الراحة لدى المريض إلى التورم داخل البطن واثار العملية الجراحية.
			٢- يجب على المريض تناول مسكنات الألم كما هو محدد على العبوة أو حسب إرشادات مقدم الرعاية الصحية الخاص به.
			٣- قد تشعر المريضة بألم في الكتف بعد اجراء الجراحة التنظيرية بسبب الغازات المستخدمة لتوسيع البطن أثناء الجراحة، قد يستمر الألم لمدة ٧ أيام.
			٤- تثقيف المريض بأن الألم سوف يبدأ بالزوال تدريجيا يوما بعد يوم لذلك يجب أن تنخفض حاجتك إلى مسكنات الألم.
			٥- يمكن استخدام الماء الساخن عند الشعور بالألم وعدم الراحة وارشاد المريض الى عدم استخدام بطانية أو وسادة تدفئة كهربائية.
			٦- يمكن استخدام كمادات الدافئة على البطن للتخفيف من الألم

			٧- استخدام المضادات الحيوية حسب وصف الطبيب مع ضرورة عدم إيقافها عند الشعور بتحسن الاعراض
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### الجانب الثالث: معارف الممرضات فيما يتعلق بالنشاطات اليومية

لا اعرف	غير متأكد	اعرف	الأسئلة المتعلقة بالنشاطات اليومية
			١- ينصح المريض بأهمية تجنب الأنشطة الشاقة والتمارين الرياضية التي تتطلب جهد كبير.
			٢- ارشاد المريض الى تجنب حمل او رفع أي شيء يزيد وزنه عن ١٠ أرطال (٥ كجم) لمدة ٦ أسابيع على الأقل بعد اجراء العملية.
			٣- ضرورة تجنب المريض الاستلقاء المفرط لفترات طويلة لتجنب اي مضاعفات.
			٤- ينصح المريض بضرورة المشي كل يوم لمسافات قصيرة ثم العمل على زيادة المسافة المقطوعة في المشي تدريجياً.
			٥- يجب على المريض اثناء المشي او ممارسة بعض التمارين الرياضية البسيطة اخذ فترات من الراحة وعدم اجهاد نفسها
			٦- يمكن للمريض القيام ببعض الاعمال الخفيفة مثل غسل الأطباق والطهي لكن يجب تجنب الكنس لأنه ممكن ان يضر المريض ويأثر على الشق الجراحي.
			٧- في حال كون المريضة تقود سيارة يجب عليها تجنب ذلك حتى تشفى تماما بعد العملية الجراحية.
			٨- ينصح المريض باستئناف النشاط الجنسي بعد ٦ اسابيع من اجراء العملية الجراحية.
			٩- عدم محاولة الحمل الا بعد ان يحدد الطبيب الوقت المناسب

### الجانب الرابع: معارف الممرضات فيما يتعلق بالنظام الغذائي الصحي

لا اعرف	غير متأكد	اعرف	الأسئلة المتعلقة بالنظام الغذائي الصحي
			١- دائما ما يفضل تناول الاطعمة الغذائية التي تحتوي على الفيتامينات والمعادن الضرورية التي تساعد في الشفاء الأسرع للعملية الجراحية.
			٢- يجب تناول الأطعمة الغذائية الغنية بالألياف مثل الحبوب الكاملة والفواكه والخضروات النيئة والخوخ.
			٣- ينصح المريض بأهمية شرب ما يقارب ٦ إلى ٨ أكواب ماء يوميا للمحافظة على مستوى السوائل في الجسم.
			٤- تعتبر الخضروات والفواكه من الاطعمة التي ينصح بتناولها لتجنب الامساك وعسر الهضم لدى المريض بعد العملية الجراحية.
			٥- تجنب الاطعمة النشوية التي تكون صعبة الهضم مثل الخبز والمعكرونة.

			٦- تجنب تناول الاطعمة الغذائية التي تحتوي على نسبة عالية من السكريات والكافيين والمشروبات الغازية كونها لا تحقق اي فائدة صحية للمريض.
			٧- تجنب تناول الاطعمة الدهنية والمقلية التي ممكن ان تؤدي الى مشاكل في الهضم وزيادة في وزن المريض.
			٨- في حالة استمرار الامساك لدى المريض، ينصح بتناول ملين للبراز أو مليناً خفيفاً.

### الجزء الثالث: ممارسات الممرضات فيما يتعلق بالرعاية التمريضية للنساء الذين

#### خضعوا لجراحة الأورام الليفية الرحمية

#### الجانب الأول: ممارسات الممرضات فيما يتعلق بإعطاء العلاج ومراقبة المرضى

لم ينجز	انجز بشكل جزئي	انجز بشكل كامل	الأسئلة المتعلقة بإعطاء العلاج ومراقبة المرضى
			١- عند وصول المريضة من صالة العمليات الى الردهة تم وضعها في وضعية مريحة و تجنب وضعية فاولر العالية والضغط تحت الركبتين أو تقاطع الساقين.
			٢- تم قياس العلامات الحيوية وجس النبض للمناطق المحيطة في الجسم، ولاحظ الملء الشعري.
			٣- تم فحص الضمادات الموجودة في مكان الشق الجراحي (العملية) وضمادات العجان، مع ملاحظة لون ومقدار ورائحة الصرف الجراحي.
			٤- قامت الممرضة بملاحظة ما إذا كان النزيف المهبل موجدًا والانتباه الى لمنطقة كميته سواء كان قطرات او ما إذا كان النزيف مفرطًا (نقع الضمادة العجان في غضون ساعة).
			٥- اعطاء العلاج بصورة دقيقة وحسب وصفة الطبيب.
			٦- إعطاء السوائل الوريدية ومنتجات الدم كما هو محدد.
			٧- إعطاء العلاجات المسكنة للألم على الفور وحسب ارشادات الطبيب.
			٨- تم تقييد المريض وشجعه على السعال المتكرر وتمارين التنفس العميق.
			٩- مساعدة المريض وتوجيهه في تمارين القدم والساق وتنقل بأسرع ما يمكن.
			١٠- تشجيع المريض على المشي وتمارين مجال الحركة النشطة عندما تكون في السرير لمنع التهاب الوريد الخثاري والركود الوريدي.
			١١- الملاحظ المستمرة لصحة المريض والاخبار في حال حدوث تورم في الأطراف أو تقارير عن ألم مفاجئ في الصدر مع ضيق في التنفس.
			١٢- المساعدة والتشجيع على تغيير ملابس المريض بشكل متكرر لتعزيز والمحافظة على النظافة.
			١٣- المساعدة على تغيير وضع المريض بشكل متكرر واستخدام الوسائد لتعزيز الراحة وتخفيف الألم.

## الجانب الثاني: ممارسات الممرضات فيما يتعلق بفحص الإخراج البول

لم ينجز	انجز بشكل جزئي	انجز بشكل كامل	الأسئلة المتعلقة بفحص الإخراج البولي
			١- تم ملاحظة الممرضة لنمط إفراغ ومراقبة كمية الإخراج البولي؟
			٢- قامت الممرضة بجس المثانة للتأكد من امتلاء المثانة او عدم قدرة المريض على البول بصورة طبيعية؟
			٣- تم توفير إجراءات تفريغ البول الروتينية للمريض مثل (الخصوصية ، الوضع الطبيعي ، المياه الجارية في الحوض ، صب الماء الدافئ على العجان).
			٤- وضع القسطرة البولية للمريضة التي لا تستطيع افراغ البول بصورة طبيعية
			٥- هل تم الانتباه الى نظافة القسطرة البولية والتأكد من فعاليتها بعد وضعها.
			٦- قامت الممرضة بمراقبة وتقييم خصائص البول ، مع ملاحظة اللون والوضوح

## الجانب الثالث: ممارسات الممرضات فيما يتعلق بمراقبة وظائف الجهاز الهضمي

لم ينجز	انجز بشكل جزئي	انجز بشكل كامل	الأسئلة المتعلقة بمراقبة وظائف الجهاز الهضمي
			١- استخدم مضادات القيء للسيطرة على الغثيان والقيء حسب تعليمات الطبيب.
			٢- قامت الممرضة بالاستماع الى أصوات الأمعاء وملاحظة اي انتفاخ في البطن او وجود غثيان وقيء.
			٣- تساعد الممرضة المريض على الجلوس على حافة السرير والمشي.
			٤- مراقبة الإطراح وتوفير المزيد من السوائل والألياف لمنع الإمساك والإجهاد.
			٥- العمل على تقييد تناول الأطعمة من خلال الفم كما هو محدد من قبل الطبيب.
			٦- تقديم سوائل صافية أو كاملة والتقدم للأطعمة الصلبة تدريجياً حسب التحمل.
			٧- إعطاء الأدوية: ملينات البراز والزيوت المعدنية والملينات كما هو محدد.

## الجانب الرابع: ممارسات الممرضات فيما يتعلق بتحسين الثقة بالنفس والأداء الجنسي

لم ينجز	انجز بشكل جزئي	انجز بشكل كامل	الأسئلة المتعلقة بتحسين الثقة بالنفس والأداء الجنسي
			١- قامت الممرضة بتوفير الوقت الكافي للاستماع إلى مخاوف المريض ومناقشة التصورات المتعلقة بالتغيرات المتوقعة في أسلوب حياتها.
			٢- يعمل الملاك التمريضي على تقييم الضغط العاطفي للمريض والاستماع إلى تعليقاتها وتوفير بيئة مفتوحة أثناء المناقشات.
			٣- تسعى الممرضة بالعمل على توفير معلومات دقيقة حول الصحة الجنسية وتعزيز المعلومات التي سبق تقديمها.
			٤- توفير بيئة مفتوحة للمريض من قبل فريق التمريض لمناقشة المخاوف المتعلقة بالجنس.
			٥- تقوم الممرضة بتقييم معلومات المريض فيما يتعلق بالوظيفة الجنسية وتأثيرات العملية الجراحية عليها.
			٦- تعمل الممرضة على تشجيع المريض على أهمية مشاركة الأفكار والمخاوف مع الشريك.
			٧- إرشاد المرضى حول حل المشاكل المحتملة مثل تأجيل الجماع عند الإرهاق ، واستخدام طرق أخرى للتعبير عن المشاعر والألفة ، واستخدام الأوضاع التي تتجنب الضغط على شق البطن ، واستخدام المزلقات المهبلية.
			٨- قامت الممرضة بتقديم الضرورية المريض والمتعلقة بأهمية تجنب الأفكار السلبية التي تؤدي إلى الاكتئاب الذاتي وزعزعة الثقة بالنفس.
			٩- قامت الممرضة بإرشاد المريض حول أهمية زيارة المستشار الصحي المختص عند الضرورة.

# *Appendix 2*

## *Panel of Experts*

## قائمة بأسماء الاساتذة الخبراء

ت	أسم الخبير	اللقب العلمي	مكان العمل	التخصص	سنوات الخبرة
١.	أ.د. ربيعة محسن علي	أستاذ	جامعة بغداد- كلية التمريض	تمريض صحة الام والوليد	٤٥
٢.	أ.د. منى عبد الوهاب خليل	أستاذ	جامعة البيان- كلية التمريض	تمريض صحة الأسرة والمجتمع	٤٣
٣.	أ.د. سعديّة هادي حمادي	أستاذ	كلية المستقبل الالهية الجامعة	تمريض صحة الام والوليد	٤٠
٤.	أ.د. فخرية جبر محبيس	أستاذ	كلية المستقبل الالهية الجامعة	تمريض بالغين	٤٣
٥.	أ.د. أمين عجيل الياسري	أستاذ	جامعة بابل- كلية التمريض	تمريض صحة الأسرة والمجتمع	٣٥
٦.	أ.د. شكرية شدهان جواد العكيلي	أستاذ	جامعة الفرات الاوسط التقنية	تمريض صحة الام والوليد	٣٠
٧.	أ.د. حسين جاسم محمد الابراهيمى	أستاذ	جامعة بابل- كلية التمريض	تمريض صحة الأسرة والمجتمع	٢٩
٨.	أ.د. سحر ادهم علي	أستاذ	جامعة بابل- كلية التمريض	تمريض بالغين	٢٨
٩.	أ.د. تغريد صلاح القزويني	أستاذ	جامعة القادسية- كلية التمريض	طب نسائية وتوليد	٢٠
١٠.	أ.م.د. نهاد محمد قاسم	مساعد	جامعة بابل- كلية التمريض	تمريض الاطفال	٢٨
١١.	أ.م.د. رسل صباح غزال	مساعد	الجامعة التقنية الوسطى-معهد التقني باب المعظم	تمريض صحة الام والوليد	٢٠
١٢.	أ.م.د. جنان اكبر شكور	مساعد	كلية التمريض- جامعة كركوك	تمريض صحة الام والوليد	٣٠
١٣.	أ.م.د. اواز عزيز سعيد	مساعد	جامعة هولير الطبية-كلية التمريض	تمريض صحة الام والوليد	٢٠
١٤.	م.د. سهيلة محمد علي	مدرس	جامعة كركوك- كلية التمريض	تمريض صحة الام والوليد	٢٩

***Appendix 3***

***Administrative***

***Agreement***

Ministry of Higher Education and Scientific Research  
 وزارة التعليم العالي والبحث العلمي

University of Babylon  
 جامعة بابل

College of Nursing  
 كلية الدراسات العليا

Ref. No. :  
 Date: /

العدد : ١٢٦٠  
 التاريخ : ٢٠٢١ / ٤ / ١٩

المصدر : ٢٠٢١  
 التاريخ : ٢٠٢١

الى / دائرة صحة بابل - مركز التدريب والتطوير

م/ تسهيل مهمة

تحية طبية :  
 يطيب لنا حسن التواصل معكم ويرجى تفضلكم بتسهيل مهمة طالبة الدكتوراه ( مریم عبد الكريم لعیبی هاشم ) لغرض جمع عينة دراسة الدكتوراه والخاصة بالبحث الموسوم :  
 تقسیم الرعاية التمريضية بعد الجراحة وتعليمات الخروج للمرضى الذين يخضعون لجراحة الأورام الليفية الرحمية في محافظة بابل

Evaluation of the Post – Operative Nursing Care and Discharge  
 Instructions for Patients Undergoing Utrine Fibroids Surgery in Babylon  
 Province

مع الاحترام ...

الملاحظات //  
 • بروتوكول .  
 • استجابة .

أ.م.د. حسام عباس داود  
 معاون العميد للشؤون العلمية والدراسات العليا  
 ٢٠٢١ / ٤ / ١٩

صورة عنه الى //  
 • مكتب العميد للتفضل بالاطلاع مع الاحترام  
 • لجنة الدراسات العليا  
 • الصدرة .

E-mail:nursing@uobabylon.edu.iq

STARS

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 009647711632208 المكتب

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University of Babylon  
College of Nursing  
Research Ethics Committee



جامعة بابل  
كلية التمريض  
لجنة الاخلاقيات البحث العلمي

Issue No: 56

Date: 14/10/2021

## Approval Letter

To,  
MARYAM ABDUL-KAREEM ELAIBI

The Research Ethics committee at the University of Babylon, College of Nursing has reviewed and discussed your application to conduct the research study entitled " Evaluation of the Post-Operative Nursing Care and Discharge instructions for Patients Undergoing Uterine Fibroids Surgery at Babylon Province."

The Following documents have been reviewed and approved:

1. Research protocol
2. Research instrument/s
3. Participant informed consent

### Committee Decision.

The committee approves the study to be conducted in the presented form. The Research Ethics committee expects to be informed about any changes occurring during the study, any revision in the protocol and participant informed consent.

  
Prof. Dr. Salma K. Jehad  
Chair Committee  
College of Nursing  
Research Ethical Committee  
13 / 4 /2021

السيد المعاون العلمي المحترم

السيدة رئيس فرع تمريض صحة الام والوليد المحترمة

اللجنة العلمية والأخلاقيات المحترمون

م اخلاقيات البحث

يرجى التفضل بالموافقة على عرض موضوع ( الماجستير الدكتوراه ) على اللجنة العلمية واخلاقيات البحث العلمي عن موضوع رسالتي ا  
اطروحتي الموسومة باللغة العربية .....

(( تقييم الرعاية التمريضية بعد الجراحة وتعليمات الخروج للمرضى الذين يخضعون لجراحة الاورام الليفية الرحمية في محافظة بابل ))

واللغة الإنكليزية.....

((Evaluation of the Post-Operative Nursing Care and Discharge Instructions for  
Patients Undergoing Uterine Fibroids Surgery at Babylon Province))

مع التقدير

اسم المشرف وتوقيعه: أ. د سلمى كاظم جهاد

اسم الطالب وتوقيعه: مريم عبد الكريم العبيدي

رئيس الفرع وتوقيعه: أ. م. د نهاد محمد قاسم

المعاون العلمي: أ. م. د حسام عباس داود  
11/4/2011

ملاحظة: ترفق جميع الاستمارات الخاصة بلجنة اخلاقيات البحث مع الطلب. (Ethical form 1, Ethical form2, Ethical Form3)

جمهورية العراق		
Ministry Of Health Babylon Health Directorate Email:- Babel_Healthmoh@yahoo.com Tel:282628 or 282621		وزارة الصحة والبيئة دائرة صحة محافظة بابل المدير العام مركز التدريب والتنمية البشرية وحدة إدارة البحوث العدد : ٤٠٠ التاريخ: ٢٠٢١ / ٤ / ١٩
إلى / مستشفى بابل للنسائية والأطفال مستشفى الإمام الصادق (ع) مستشفى الحلة التعليمي مستشفى الهاشمية العام مستشفى الزهراء للولادة		
وزارة الصحة دائرة صحة بابل مركز التدريب والتنمية البشرية	دائرة صحة محافظة بابل مستشفى الإمام الصادق (ع) المدير العام	م / تسهيل مهمة
السلام عليكم ... أشارة إلى كتاب جامعة بابل / كلية التمريض / لجنة الدراسات العليا ذي العدد ١٢٦٠ في ٢٠٢١/٤/١٩ ترفق لكم ربطا استمارات الموافقة المبذنية لمشروع البحث العائد للباحثة طالبة الدراسات العليا دكتوراه (مريم عبد الكريم لعيبي هاشم). للفضل بالاطلاع وتسهيل مهمة الموما إليه من خلال توقيع وختم استمارات اجراء البحث المرفقة في مؤسساتكم وحسب الضوابط والإمكانات لاستحصال الموافقة المبذنية ليتسنى لنا اجراء اللازم على أن لا تتحمل مؤسساتكم أية تبعات مادية وقانونية .... مع الاحترام		
المرفقات : استمارة عدد ٢ /		
الدكتور محمد عبد الله عجرش مدير مركز التدريب والتنمية البشرية ٢٠٢١ / /	و مدير مركز التدريب والتنمية البشرية ٢٠٢١ / /	مدير مركز التدريب والتنمية البشرية ٢٠٢١ / /
نسخة منه إلى : • مركز التدريب والتنمية البشرية / وحدة إدارة البحوث مع الأوليات ...		

جمهورية العراق		
Ministry Of Health Babylon Health Directorate Email:- Babel_Healthmoh@yahoo.com Tel:282628 or 282621		وزارة الصحة والبيئة دائرة صحة محافظة بابل المدير العام مركز التدريب والتنمية البشرية وحدة إدارة البحوث
		العدد : ٤٠٠
		التاريخ: ٢٠٢١/٤/١٩

إلى / مستشفى بابل للنسائية والأطفال  
 مستشفى الأمام الصادق (ع)  
 مستشفى الحلة التعليمي  
 مستشفى الهاشمية العام  
 مستشفى الزهراء للولادة

م/ تسهيل مهمة

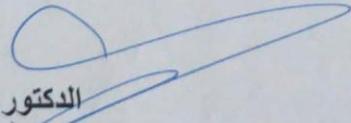
السلام عليكم ...

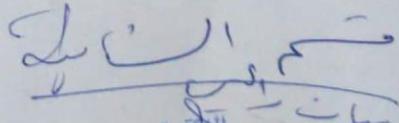
أشارة إلى كتاب جامعة بابل / كلية التمريض / لجنة الدراسات العليا ذي العدد ١٢٦٠ في ٢٠٢١/٤/١٩

نرفق لكم ربطا استمارات الموافقة المبديية لمشروع البحث العائد للباحثة طالبة الدراسات العليا دكتوراه (مريم عبد الكريم لعبيبي هاشم).

للتفضل بالاطلاع وتسهيل مهمة الموما إليه من خلال توقيع وختم استمارات اجراء البحث المرفقة في مؤسساتكم وحسب الضوابط والإمكانات لاستحصال الموافقة المبديية ليتسنى لنا اجراء اللازم على أن لا تتحمل مؤسساتكم أية تبعات مادية وقانونية .... مع الاحترام

المرفقات :  
استمارة عدد ٢/

  
 الدكتور  
 محمد عبد الله عجرش  
 مدير مركز التدريب والتنمية البشرية  
 ٢٠٢١ / /

  
 السيدة  
 زهراء السيد  
 اختصاصية استشارات  
 ٢٠٢١ / /

نسخة منه الى :

• مركز التدريب والتنمية البشرية / وحدة إدارة البحوث مع الأوليات ...

<p>Ministry Of Health Babylon Health Directorate Email:- Babel_Healthmoh@yahoo.com Tel:282628 or 282621</p>	<p>جمهورية العراق وزارة الصحة بابل</p> 	<p>وزارة الصحة والبيئة دائرة صحة محافظة بابل المدير العام مركز التدريب والتنمية البشرية وحدة إدارة البحوث</p> <p>العدد: ٤٠٠ التاريخ: ٢٠٢١/٤/١٩</p>
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إلى / مستشفى بابل للنسائية والأطفال  
مستشفى الأمام الصادق (ع)  
مستشفى الحلة التعليمي  
مستشفى الهاشمية العام  
مستشفى الزهراء للولادة

وزارة الصحة  
دائرة صحة بابل -  
مركز التدريب والتنمية البشرية

م/ تسهيل مهمة

السلام عليكم ...  
أشارة إلى كتاب جامعة بابل / كلية التمريض / لجنة الدراسات العليا ذي العدد ١٢٦٠  
في ٢٠٢١/٤/١٩  
نرفق لكم ربطا استمارات الموافقة المبدينية لمشروع البحث العائد للباحثة طالبة الدراسات  
العليا دكتوراه (مريم عبد الكريم لعبيبي هاشم).  
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المرفقة في مؤسساتكم وحسب الضوابط والإمكانات لاستحصال الموافقة المبدينية ليتسنى لنا  
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**المرفقات :**  
استمارة عدد ٢/

الدكتور  
محمد عبد الله عجرش  
مدير مركز التدريب والتنمية البشرية  
٢٠٢١ / /

التعليم العالي المستمر  
إم.م. الدكتور محمد الفواط  
٦١٥

**نسخة منه إلى :**  
• مركز التدريب والتنمية البشرية / وحدة إدارة البحوث مع الأوليات ...

<p>Ministry Of Health Babylon Health Directorate Email:- Babel_Healthmoh@yahoo.com Tel:282628 or 282621</p>	<p>جمهورية العراق</p> 	<p>وزارة الصحة والبيئة دائرة صحة محافظة بابل المدير العام مركز التدريب والتنمية البشرية وحدة ادارة البحوث</p> <p>العدد : ٤٠٠</p> <p>التاريخ: ٢٠٢١/٤/١٩</p>
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إلى / مستشفى بابل للنسائية والأطفال  
 مستشفى الإمام الصادق (ع)  
 مستشفى الحلة التعليمي  
 مستشفى الهاشمية العام  
 مستشفى الزهراء للولادة

وزارة الصحة  
دائرة صحة بابل -  
مركز التدريب والتنمية البشرية

م/ تسهيل مهمة

السلام عليكم ...  
 إشارة إلى كتاب جامعة بابل / كلية التمريض / لجنة الدراسات العليا ذي العدد ١٢٦٠  
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المرفقات :  
 استمارة عدد ٢ /

الدكتور  
 محمد عبد الله عجرش  
 مدير مركز التدريب والتنمية البشرية  
 ٢٠٢١ / /

الدكتور الرشدي  
 مدير مستشفى الزهراء للولادة  
 ٦/٤

نسخة منه إلى :  
 • مركز التدريب والتنمية البشرية / وحدة ادارة البحوث مع الأوليات ...

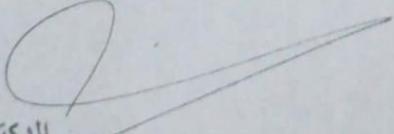
جمهورية العراق		
Ministry Of Health Babylon Health Directorate Email:- Babel_Healthmoh@yahoo.com Tel:282628 or 282621		وزارة الصحة والبيئة دائرة صحة محافظة بابل المدير العام مركز التدريب والتنمية البشرية وحدة ادارة البحوث العدد : ٤٠٠ التاريخ: ٢٠٢١/٤/٢٢

إلى / مستشفى بابل للنسائية والأطفال  
 مستشفى الأمام الصادق (ع)  
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 مستشفى الهاشمية العام  
 مستشفى الزهراء للولادة

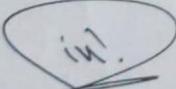
م/ تسهيل مهمة

السلام عليكم ...  
 إشارة إلى كتاب جامعة بابل / كلية التمريض / لجنة الدراسات العليا ذي العدد ١٢٦٠  
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المرفقات :  
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 الدكتور  
 محمد عبد الله عجرش  
 مدير مركز التدريب والتنمية البشرية  
 ٢٠٢١ / /

نسخة منه إلى :  
 • مركز التدريب والتنمية البشرية / وحدة ادارة البحوث مع الأوليات ...

جمهورية العراق		
<b>Ministry Of Health</b> <b>Babylon Health Directorate</b> Email:- <b>Babel_Healthmoh@yahoo.com</b> Tel:282628 or 282621		وزارة الصحة والبيئة دائرة صحة محافظة بابل المدير العام مركز التدريب والتنمية البشرية لجنة البحوث
استمارة رقم :- ٢٠٢١/٠٣		
<div style="border: 1px solid blue; padding: 5px; display: inline-block;">           وزارة الصحة            دائرة صحة بابل            مركز التدريب والتنمية البشرية         </div>		
رقم القرار :- ٤٤		
تاريخ القرار :- ٢٠٢١/٨ / ٢٤		
<b>قرار لجنة البحوث</b>		
تحية طيبة ...		
<p>درست لجنة البحوث في دائرة صحة بابل مشروع البحث ذي الرقم (٢٠٢١/٠٣٤ / بابل) المعنون (تقييم الرعاية التمريضية بعد الجراحة وتعليمات الخروج للمرضى الذين يخضعون لجراحة الأورام الليفية الرحمية في محافظة بابل) والمقدم من الباحثة (مريم عبد الكريم العيبي) إلى وحدة إدارة البحوث والمعرفي مركز التدريب والتنمية البشرية في دائرة صحة بابل بتاريخ ٢٠٢١/٨/٢٤ وقررت :</p>		
<p>قبول مشروع البحث أعلاه كونه مستوفيا للمعايير المعتمدة في وزارة الصحة والخاصة بتنفيذ البحوث ولا مانع من تنفيذه في مؤسسات الدائرة .</p>		
مع الاحترام		
 الدكتور / محمد عبد الله عجرش رئيس لجنة البحوث ٢٠٢١ / /		
نسخة منه إلى :		
• مكتب المدير العام / مركز التدريب والتنمية البشرية / وحدة إدارة البحوث ... مع الأوليات.		
سوزنان		
دائرة صحة محافظة بابل / مركز التدريب والتنمية البشرية // ايميل المركز <a href="mailto:babiltraining@gmail.com">babiltraining@gmail.com</a>		

Ministry of Higher Education  
and Scientific Research

جامعة بابل  
كلية التربية للعلوم الانسانية

الجمهورية العراقية  
UNIVERSITY OF BABYLON

Ref. No: \_\_\_\_\_  
Date: / /

العدد: \_\_\_\_\_  
التاريخ: \_\_\_\_\_

الى / جامعة بابل / كلية التربية

محسب السيد معاون العميد للشؤون العلمية المحترم

م / أعادة رسالة

تحية طيبة:

تعبد إليكم اطروحة طالبة الدراسات العليا / الدكتوراه ( مريم عبد الكريم العيسى) بعد  
تقويمها لغويًا من قبل ( ا.د. قاسم عباس ضايغ) من قسم اللغة الانكليزية في مكتبنا،  
وقد ثبت الملاحظات على متن الرسالة يرجى من الباحث الالتزام بها .

\*\*\* مع الاحترام \*\*\*

  
ا.د. اسامة كاظم عمران  
معاون العميد للشؤون العلمية  
والدراسات العليا



نسخة منه الى:  
- الدراسات العليا  
- الصدارة

تمديد الاكتروني bad\_edu\_humsci@yahoo.com  
هاتف 07801010633

www.uobabylon.edu.iq

## المستخلص :

تنمو الأورام الليفية الرحمية في الرحم وغالبًا ما تظهر خلال سنوات الإنجاب. يتراوح حجم الأورام الليفية الرحمية من حجم البذرة التي لا يمكن للعين البشرية رؤيتها ، إلى الكتل الضخمة التي يمكن أن تشوه الرحم . يعتبر التدخل الجراحي أحد التدابير العلاجية التي يمكن اعتمادها للتعامل مع هذه الحالة ، وتهدف هذه الدراسة إلى تقييم معرفة الممرضات حول تعليمات الخروج وممارساتهم فيما يتعلق بالرعاية التمريضية بعد الجراحة للمريض الذي خضع لعملية جراحية في الرحم الليفية.

بدأ البحث الكمي والتصميم الوصفي المقطعي في الفترة من ( ٢١ سبتمبر/ ٢٠٢٠ إلى ١٥ يوليو/ ٢٠٢٢ ) ، وأجريت في محافظة بابل . تتكون العينة المستهدفة غير الاحتمالية من (١١٧) ممرضة تعمل في ردهات الجراحة النسائية في المستشفى والتي تم اختيارهن لإجراء هذه الدراسة. يتكون استبيان الدراسة من ثلاثة أجزاء ، الجزء الأول حول الخصائص الديموغرافية ، بينما تضمن الجزء الثاني معرفة الممرضات حول تعليمات الخروج والجزء الأخير حول ممارسات الممرضات في الرعاية التمريضية بعد الجراحة.

أظهرت نتائج هذه الدراسة أن أعلى نسبة عمر بين الممرضات والممرضات في الفئة العمرية أقل من ٣٠ سنة وأكثر منهن في اعدادية التمريض . الممرضات ذوي المعرفة الضعيفة حول تعليمات الخروج بمتوسط الدرجة (٤٥,١٧) ، وكذلك هؤلاء الممرضات ذوي الممارسات الضعيفة فيما يتعلق بالرعاية التمريضية بعد الجراحة بمتوسط درجة (٥٦,٧٢). هناك علاقة ارتباط معنوية بين معرفة الممرضات حول تعليمات الخروج وممارساتهم في الرعاية التمريضية بعد الجراحة تعتمد على الارتباط واختبار الانحدار الخطي.

خلصت الدراسة إلى أن غالبية الممرضات اللاتي شاركن في الدراسة لم يتعرضن لأي برنامج تدريبي حول كيفية تقديم الرعاية التمريضية بعد الجراحة وتعليمات الخروج للمرضى الذين خضعوا لتدخل جراحي لإزالة الأورام الليفية الرحمية. بالإضافة إلى ذلك ، فإن الغالبية العظمى من الممرضات اللاتي يعملن في ردهات الجراحة النسائية وشاركن في الدراسة كان لديهن مستوى منخفض من المعرفة حول تعليمات الخروج وليس لديهن ممارسة جيدة في الرعاية التمريضية في مرحلة ما بعد الجراحة.

وأوصت الباحثة بضرورة أن تعمل المؤسسات الصحية على توفير التعليمات اللازمة للخروج للمريض بما يتناسب مع حالته الصحية وزيادة معرفة الممرضات العاملات في ردهات الجراحة النسائية بإرشادات الخروج للمرضى الذين يخضعون لجراحة الأورام الليفية الرحمية. إعداد البرامج

التدريبية وورش العمل العلمية التي تساعد في زيادة الممارسات السريرية ومهارات الممرضات  
للتعامل مع المريض بعد العملية الجراحية لإزالة الأورام الليفية من الرحم وتقديم رعاية تمريضية  
أفضل



جمهورية العراق  
وزارة التعليم العالي والبحث العلمي  
جامعة بابل  
كلية التمريض

تقييم الرعاية التمريضية بعد الجراحة وتعليمات الخروج  
للنساء اللواتي يخضعن لجراحة تليف الرحم في محافظة بابل

أطروحة مقدمة الى

مجلس كلية التمريض / جامعة بابل

كجزء من متطلبات نيل درجة الدكتوراه فلسفة في

التمريض

جامعة بابل

من قبل

مريم عبد الكريم العيبي

بأشراف

أ. د. سلمى كاظم جهاد

رمضان / ١٤٤٣ هجري

نيسان / ٢٠٢٢ ميلادي