Introduction

Hysterectomy is the surgical removal of all or part of a woman's uterus, typically to treat cancer, chronic pain or heavy bleeding that has not been controlled by less invasive methods. For some women, structures other than the uterus are also removed, including part of the vagina, the cervix, the fallopian tubes and ovaries ***(Ghaffar et al., 2010).***

Hysterectomy is the most common non-pregnancy related gynecological surgical procedure performed all over the world, with one in three women having a hysterectomy by the age of 60 women in the United States ***(Nieboer and Johnson, 2010).*** The tissues removed depend upon the surgeon and the reason for surgery. All types of hysterectomy end a woman's ability to become pregnant. Also, surgeries that include the removal of the ovaries cause menopause to set in after surgery, if the woman had not already entered menopause ***(Ghaffar et al., 2010).***

Hysterectomies can be performed abdominally, vaginally or laparoscopically assisted. The abdominal route offers the surgeon an optimal view and allows a uterus of any size to be resected. A Cochrane review of surgical approaches to hysterectomy for benign gynecological diseases concluded that, where possible vaginal hysterectomy (VH) should be performed in preference to abdominal hysterectomy (AH) ***(Gizzo et al., 2013).***

LigaSure systems have been developed to seal large tissue bundles and blood vessels up to 7 mm diameter for some models. Sealing vascular pedicles with easy-access ligaSure instruments has been shown to reduce blood loss while remaining an equally safe alternative to patients with challenging VH ***(Lakemam et al., 2012).***

The safety and efficacy of using Ligasure® system have been studied by several previous trials ***(Levy et al., 2003; Ding et al., 2005; Cronje et al., 2005; Hefni et al., 2005; Elhao et al., 2009);*** of them 3 trials showed a significantly lower intraoperative blood loss when compared to traditional VH, while the other 2 trials did not show that significant difference.

Patient satisfaction is a measurement designed to obtain reports or ratings from patients about services received from an organization, hospital, physician or health care provider. Research has developed the meaning of patient satisfaction to be more precisely defined as the patient experience. On a practical level, patient satisfaction is equivalent to the actual measure.

Therefore, the quality of the measure, the questions asked, sampling, and response rates shape the results. Measures vary on how well they ask questions related to health services, rather than on the comfort of the waiting room and the flavor of the food. In recent years, there is increasing standardization on patient satisfaction measures ***(Schoenfelder et al., 2010).***

Satisfaction trends will have peaks and valleys, but the overall trend should always be on an upswing. Making patients feel like unique individuals and keeping them updated during their long waits may also help to increase patient satisfaction. How we speak and act influences the healing process of our patients.

By helping patients feel more comfortable, their anxiety lessens, and they are better able to understand what is going on, their treatment plan, and the importance of following through with their discharge instructions. We may all come to the same diagnosis for a patient, but satisfaction is also based on how the patient was treated while forming that diagnosis ***(Capko and Bisera, 2013).***

Communication is key for patient satisfaction. We must acknowledge our patient's feelings and concerns and let them know we understand and are actively paying attention to both their verbal and nonverbal language. It is not only what we say, but also how we say it. Our patients must feel that we care and have their best interest at hand.

When dealing with angry and upset patients/families, there are multiple techniques that can be used to help diffuse these situations, all based on how we communicate. I recommend learning some of these techniques if you are not already aware of them ***(Sheldon et al., 2013)***.

Nurses are a vital part of the healthcare team and provide the majority of direct patient care. In addition to performing routine medical procedures, they play many other important roles. Nurse is not just a simple nurse. There are complexities and there are different roles and responsibilities that a nurse must know. This may vary depending on her workplace or depending on her patient.

She serves the different roles. Nurses are often the first to see a patient and triage, or assess the seriousness and nature of a patient's complaint. They are also responsible for providing ongoing assessment. Depending on the type of health care setting, nurses may share in the work of running a medical office. All nurses are responsible for carefully documenting the patient's condition and care given ***(Huber, 2013).***

The nurse patient relationship, sets the tone of the care experience and has a powerful impact on patient satisfaction. Nurses spend the most time with patients. Patients see nurses' interactions with others on the care team and draw conclusions about the hospital based on their observations. Also, nurses' attitudes toward their work, their coworkers and the organization affect patient and family judgments of all the things they don't see behind the scenes.

Without a positive nurse patient relationship, there cannot be patient and family satisfaction. And there cannot be an environment that supports anxiety reduction and healing.By analyzing and understanding the factors that have the greatest impact on overall patient satisfaction, the nurse can AIM. The nurse can focus his efforts and resources on improvements with the greatest potential to enhance the patient experience ***(Alan, 2009).***

Nursing care is one of the major health care services that contribute significantly to the patient healing process. Even though there may be competent physicians present in a given health institution, it would be inadequate without appropriate nursing care. Nurses have 24 hour contact with patients as well as being near to them. Patient satisfaction is often determined by the nursing care in any health setup ***(Alan, 2009).***

Justification of the Study

Hysterectomy is one of the most prevalent surgeries worldwide. Nine out of every ten hysterectomies are performed for noncancerous conditions that are not life threatening but have a negative impact on quality of life ***(Johnson et al., 2005, Chakraborty et al., 2011).***

Laparotomy continues to be the preferred method for hysterectomy in approximately 60–70% of benign uterine processes. Is this a sign of a deficit in surgical skill that is

transmitted from generation to generation of specialists? The hysterectomy rate is showing a slight change in favor of VH (vaginal hysterectomy) rather than LH (laparoscopic hysterectomy), although it is no way near the estimated 80–90% of hysterectomies that could potentially be managed with a minimally invasive approach. Unfortunately, the decision to adopt the surgical route evidently depends more on the skill of the surgeon than the advantages this technique may have for the patient ***(Geoffrion et al., 2013).***

LigaSure technique in hysterectomy (vaginal& abdominal) is a rapid way that would improve the operation time, blood loss, postoperative pain and hospital stay when compared to the traditional surgical procedure of hysterectomy that may have impact to increase patient satisfaction after surgery. Thus, this study will investigate this issue (***Henifordet al., 2001; Douay et al., 2007; Dubuc-Lissoir, 2003)***.

Aim of the Study

To assess women's satisfaction after hysterectomy using traditional methods versus LigaSure system.

Research question:

Does using LigaSure system during hysterectomy increase women's satisfaction more than traditional methods?

Outlines of review

Chapter (I) Hysterectomy:

1) Hysterectomy using traditional methods.

1. Indication for Hysterectomy.
2. Types of Hysterectomy.
3. Techniques of procedures.
    - Total Abdominal Hysterectomy with and without bilateral Salpingo-oophorectomy.
    - Vaginal hysterectomy with or without Salpingo-oophorectomy.
    - Laparoscopic techniques.
4. Complications of Hysterectomy.
    - Psychological complications.
    - Physical complications.
        - Hemorrhage
        - Ureteral injuries
        - Bladder injuries.
        - Bowel injury.
5. Infection.
6. Urinary retention.

2) Hysterectomy with Ligasure system.

1. Device Description.
2. Indications for Use.
3. LigaSure System Generator.
    - Open instrument.
    - Laparoscopic instrument.
4. Techniques of hysterectomy using ligaSure system.
5. Safety and efficacy of using the LigaSure system.

Chapter (II) Nursing Roles and Patient Satisfaction.

1. Pt. satisfaction & quality of care.
2. Nursing roles to improve pt. satisfaction.
    - Preoperative care.
        - Nursing role as a care giver.
        - Nursing role as researcher.
        - Nurse's role as educator & Counselor.
        - Nursing role as a manager.
    - Intraoperative care.
        - Nursing role is as a care giver.
            - Anesthetic Nurse.
            - Circulating Nurse.
            - Scrub nurse.

- Nursing role as a manager.

- Postoperative care.

  - Nursing role as a care giver.

    - Post anesthesia care unit (PACU) (recovery nurse).
    - Immediate postoperative care.
    - The first 24hrafter surgery.
    - After the initial 24 hours.

  - Nursing role as a Researcher.

  - Nursing role as Educator & Counselor.

  - Nursing role as manager.

Chapter (I)
Hysterectomy

A) Hysterectomy using traditional methods

Hysterectomy is the most frequently performed major gynecological operation in the world. For benign situations, hysterectomy is most usually done using either the abdominal or vaginal method. Nevertheless, a small proportion of women with benign conditions undergo laparoscopic hysterectomy, which was introduced in the 1980s in the United States ***(Ghaffar et al., 2010).***

Six hundred thousand hysterectomies are done each year world-wide, In the United Kingdom, women have a one in five chance of having a hysterectomy by the age of 55.3 ***(Ghaffar et al., 2010).***

Indication for Hysterectomy

Hysterectomy is normally recommended as a last resort to remedy certain intractable uterine/reproductive system conditions. Such conditions include, but are not limited to Certain types of reproductive system cancers (uterine, cervical, ovarian) or tumors, including uterine fibroids that do not respond to more conservative treatment options ***(Middleton et al., 2010).***

Severe and intractable endometriosis and/or adenomyosis after pharmaceutical or other surgical options have been exhausted. Chronic pelvic pain, after pharmaceutical or other surgical options have been exhausted. In case of severe placenta previa or placenta percreta as well as a last resort in case of excessive obstetrical hemorrhage. Prophylaxis against certain reproductive system cancers, especially if there is a strong family history of reproductive system cancers (especially breast cancer) (***Hagen et al., and 2005).***

Types of Hysterectomy

Hysterectomy, in the literal sense of the word, means merely removal of the uterus. However other organs such as ovaries, fallopian tubes and the cervix are very frequently removed as part of the surgery.

Radical hysterectomy: complete removal of the uterus, cervix, upper vagina, and Parametrium. Indicated for cancer. Lymph nodes, ovaries and fallopian tubes are also usually removed in this situation. Total hysterectomy: Complete removal of the uterus and cervix, with or without oophorectomy. Subtotal hysterectomy: removal of the uterus, leaving the cervix in situ ***(Kyo et al., 2009).***

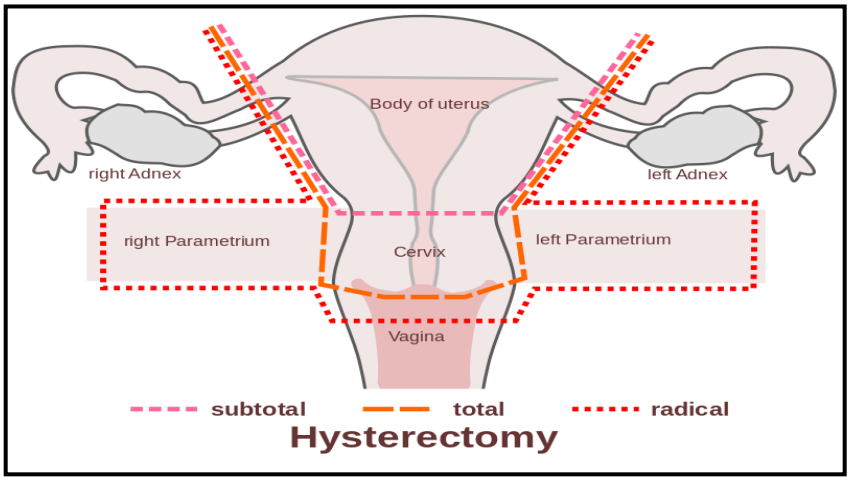

Figure (1): Types of hysterectomy, **(Kyo S, Mizumoto Y, Takakura M, Hashimoto M, Mori N, Ikoma T et al.** Experience and efficacy of a bipolar vessel sealing system for radical abdominal hysterectomy. Int J Gynecol Cancer. 2009; 19: 1658-61).

Oophorectomy (removal of ovaries) is frequently done together with hysterectomy to decrease the risk of ovarian cancer. However, recent studies have shown that prophylactic oophorectomy without an urgent medical indication decreases a woman's long-term survival rates substantially and has other serious adverse effects ***(Kyo et al., 2009).***

Techniques of procedures

Hysterectomy can be performed in different ways. The oldest known technique is **abdominal incision** Total abdominal hysterectomy refers to complete removal of the uterus including cervix. Subsequently the vaginal **(performing the hysterectomy through the vaginal canal)** and later **laparoscopic vaginal** (with additional instruments inserted through a small hole, frequently close to the navel) techniques were developed ***(Garry, 2005).***

1. Total Abdominal Hysterectomy with and without bilateral Salpingo-oophorectomy.

1. The patient is then put in Trendelenburg position. A transverse (Pfannenstiel) incision is made through the abdominal wall, usually above the pubic bone, as close to the upper hair line of the individual's lower pelvis as possible, similar to the incision made for a caesarean section ***(Garry, 2005).***

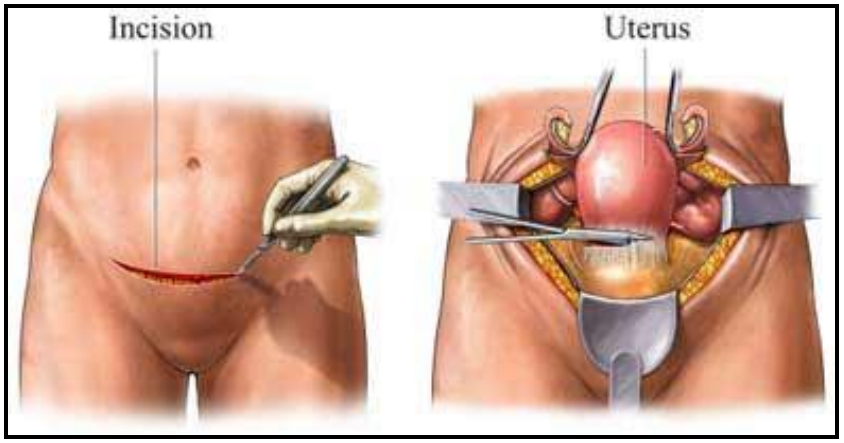

Figure (2): (Pfannenstiel) incision abdominal technique of hysterectomy, **(Garry R.** The future of hysterectomy. BJOG. 2005; 112(2): 133-9).

2. Self-retaining retractors are placed in the abdominal incision, and the bowel is packed off with warm, moist gauze packs. The left round ligament is placed on stretch and incised between clamps. The distal stump of the round ligament is ligated with 0 synthetic absorbable suture. The proximal stump is held with a straight Ochsner clamp. At this point the leaves of the broad ligament are opened both anteriorly and posteriorly. This is performed by delicate dissection with the Metzenbaum scissors ***(Nieboer et al., 2010).***

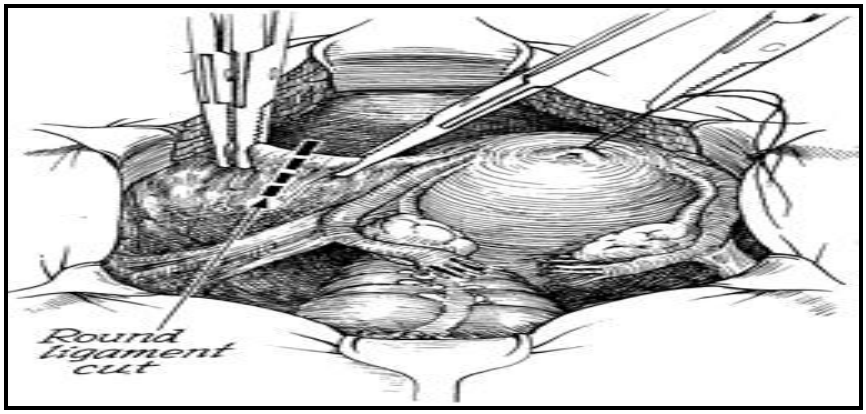

Figure (3): Round ligament cut, **(Nieboer TE, Johnson N, Lethaby A, Tavender E, et al.** Surgical approach to hysterectomy for benign gynecological disease. Cochrane Database of Systematic Reviews. 2010; 215-248).

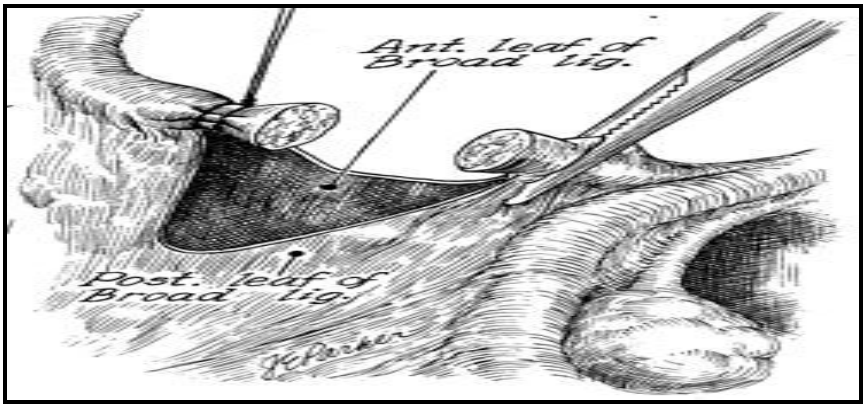

Figure (4): Round Ligament ligated, **(Nieboer TE, Johnson N, Lethaby A, Tavender E, et al.** Surgical approach to hysterectomy for benign gynecological disease. Cochrane Database of Systematic Reviews. 2010; 215-248).

3. While retracting the uterus cephalad, the surgeon opens the anterior lead of the broad ligament to the vesicouterine fold. Are carried out on the opposite side ***(Nieboer, 2010).***