



End of degree project proposal

A transcultural approach to nurse's attitudes towards hysterectomy: a cross-sectional study.

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List of abbreviations

Abbreviation	Meaning
OR	Operating room
L. H.	Laparoscopic Hysterectomy
L. A. V. H.	Laparoscopic-Assisted Vaginal Hysterectomy
R. A. L H.	Robotic-Assisted Laparoscopic Hysterectomy
A. H.	Abdominal Hysterectomy
V. H.	Vaginal Hysterectomy
FSFI	Female Sexual Function Index
GnRH Agonists	Gonadotropin-releasing Hormone Agonists
NSAIDs	Nonsteroidal Anti-inflammatory Drugs
R. A. S.	Robotic Assisted Surgery
L. S.	Laparoscopic Surgery

1. Abstract

Introduction: Hysterectomy is a surgical procedure that has been practiced since before the Greek era and is now the second most performed surgery in the USA after birth by caesarean section. It is important to understand the indications, complications, surgical approaches and patient's attitudes towards the surgery to be able to make a comparison to nurse's attitudes. This allows further investigation in the differences in perceptions to later be able to assure nurses get a fuller understanding of patients worries and better care.

Objective: The objective of this study is to introduce the concept of hysterectomy, its indications, complications and alternatives as well as understanding patients and nurse's attitudes in different countries towards the surgery to later be able to understand the factors that differentiate the two groups to choosing one surgical route over another.

Methodology: This is an observational correlational cross-sectional descriptive study. Target population is all female nurses that have been working in a medical-surgical field and/gynaecology and obstetrics units for at least a year and patients from all public and private hospitals world-wide that have undergone either laparoscopic or abdominal hysterectomy within the last year (of this study). Accessible population are patients and nurses with those same criteria in La Paz University Hospital. It will be a non-probability convenience sampling study. Data collection will be carried out via survey and total estimated duration of study is 15 months.

Keywords: hysterectomy, nurses, transcultural nursing, patient preference

2. Resumen

Introducción: la histerectomía es un procedimiento quirúrgico que se practica desde hasta antes de la era griega y ahora es la segunda cirugía más realizada en los EE. UU. después del nacimiento por cesárea. Es importante entender las indicaciones, complicaciones, abordajes quirúrgicos y actitudes de los pacientes hacia la cirugía para poder comparar éstas con las actitudes de los enfermeros. Esto ayudará a entender las diferentes perspectivas entre los dos grupos y mejorará la comprensión enfermera sobre las preocupaciones de los pacientes para proporcionar mejores cuidados.

Objetivo: El objetivo de este estudio es introducir y explicar el concepto de histerectomía, sus indicaciones, complicaciones y alternativas, así como comprender las actitudes de los pacientes y las enfermeras en diferentes países sobre la cirugía para luego poder entender los factores que hacen que elijan una ruta quirúrgica sobre otra.

Metodología: se trata de un estudio descriptivo, correlacional y de corte transversal. La población diana son todas las enfermeras que han trabajado en un campo médico-quirúrgico y unidades de ginecología y obstetricia durante al menos un año y pacientes de todos los hospitales públicos y privados que se han sometido a histerectomía abdominal o laparoscópica en el último año en todo el mundo. La población accesible son pacientes y enfermeras con los mismos criterios, pero localizados el Hospital Universitario La Paz. Será un estudio de muestreo de conveniencia no probabilístico y la recolección de datos se realizará a través de una encuesta. La duración total estimada del estudio es de 15 meses.

Palabras clave: histerectomía, enfermeros, enfermería transcultural, prioridad del paciente

3. Presentation

The reason for the election of this specific subject is due to personal experience in dealing with patients undergoing hysterectomies during one of my internships as a nursing student. Operating room (OR) nursing is something I had looked forward to during my degree and I had not realized the importance of our role in this area and out of all the surgeries I had seen, hysterectomy was the most impressive.

While the OR is one of the places where there is little patient-nurse contact, it is of immense importance that the nurse accompanies and empathises with the patients until their moment of intubation and after they wake up because the patients find themselves in a situation of loss of self-control, fear and nervousness, especially in gynaecologic surgery which is intimately linked to fear of loss of femininity and self-identity.

With this said, nurses generally must undergo four years of studies accompanied with internships to become a nurse, so that when they have graduated, they will have obtained a lot of medical knowledge. What I wanted to know was how that knowledge separates them from non-medical working women from taking certain health decisions related to undergoing hysterectomies, the difference in anxiety levels and surgical fears and what they consider important in respect to recovery times, scarring etc. and their preference to the different approaches available.

I also wanted to understand and see these differences between the two groups in two different cities to compare how much culture influences those decisions and determine how much literature has been developed on this matter.

4. Review of the literature

4.1 Hysterectomy: Definition and History

Hysterectomy a sterile surgical procedure to remove the uterus. The different approaches include vaginal hysterectomy, abdominal hysterectomy, laparoscopic hysterectomy and the newer robotic-assisted hysterectomy.

Vaginal hysterectomies have been known to be performed since 120 A.D. but the first authenticated one was in 1507 ⁽¹⁾. Throughout the years, due to lack of knowledge on how to perform the procedure, led to an association of higher mortality rate and vaginal hysterectomies. This rate was drastically reduced with the discovery and use of anaesthesia and antiseptic measures ⁽¹⁾. Now, vaginal hysterectomy is the best choice for hysterectomy in benign causes, due to it being the safest and most cost-effective route of all ⁽²⁾.

The first recorded abdominal hysterectomy was done in the nineteenth century in England, though the first successful one was done in Massachusetts by accident by Walter Burnham. In the twentieth century the Academy of Medicine, Paris, condemned the procedure due to its high mortality rate ⁽¹⁾. Again, thanks to anaesthesia and antiseptic measures, mortality rates dropped and gave the surgeons an opportunity to perform total abdominal hysterectomies in contrast to the subtotal hysterectomies that had been performed until this point ⁽¹⁾. In the United States, it is the second most performed surgery (in 2010) only preceded by childbirth by caesarean section ⁽³⁾.

While the origins of endoscopy date back to the Greek era, the first total laparoscopic hysterectomy was done in Pennsylvania by Harry Reich. Laparoscopy nowadays gives the surgeon a great view of the interior of the abdomen and all the pelvic organs and therefore more precision in the surgery process ⁽¹⁾. The only negative perspective of choosing this route is the requirement of special surgeon experience because the technique is more difficult than traditional vaginal hysterectomy ⁽⁴⁾.

Robotic-assisted hysterectomy is a relatively newer technique, still being studied, but has some clear disadvantages in relation to the other hysterectomy routes such as being more expensive, reduced tactile feedback, longer material preparation time, among others ⁽¹⁾.

4.2 Indications

4.2.1 Fibroids

Fibroids, also called leiomyomas or myomas, are benign tumours (in more than 99% of fibroids) located in the muscular wall of the uterus ⁽⁵⁾. While usually asymptomatic, they can cause problems such as heavy menstrual bleeding (if bordering the uterine cavity) and in turn anaemia due to iron deficiency, bleeding between menstrual periods or menstrual periods lasting a long time and if the tumour is very large in size it may press down on other organs causing pelvic pain, constipation, a frequent need to urinate and abdominal enlargement simulating pregnancy ⁽⁶⁾.

They are common in African-American women, overweight women especially those that eat large quantities of red meat, women with a family medical history of fibroids and women reaching menopause due to higher levels of estrogen though after menopause they tend to shrink in size ⁽⁷⁾

4.2.2 Chronic Pelvic Pain

Chronic pelvic pain is defined as pain located under the umbilicus and lasting over six months. It can be caused by many different conditions, gynaecologic conditions include fibroids, endometriosis, adenomyosis and pelvic inflammatory disease (PID) among others ⁽⁸⁾.

4.2.3 Endometriosis

Endometriosis is the condition in which endometrial tissue is found in places that is not the uterus. It then proceeds to act as if it were still in the uterus following the build-ups and break-downs of the lining during the menstrual cycle causing small bleeding and damaging the area it is located on ⁽⁹⁾. Endometriosis shows itself usually in the form of menstrual cramp pains stronger than normal in the abdomen or lumbar area ⁽⁹⁾.

It mainly affects women in their fertile ages and tends to be less common in women that have gone through menopause ⁽⁹⁾.

4.2.4 Uterine Prolapse

Uterine prolapse is the pressing down of the uterus (due to weakened tissue) onto the vagina. It may manifest itself as a sensation that the pelvis is heavy, the uterus or cervix can be seen

in the vaginal opening, lower back pain and urinary incontinence. It is more likely to happen to women that have given birth more than one time and tends to show in older ages ⁽¹⁰⁾.

4.2.5 Abnormal Uterine Bleeding

Abnormal bleeding from the uterus is bleeding that is not normal for the woman such as spotting between menstrual periods or having them longer than seven days, having periods more often than the twenty-one-day cycle and/or extremely heavy bleeding ⁽¹¹⁾.

4.2.6 Cancer

Gynaecologic cancers include cervical, ovarian, uterine, vaginal and vulvar cancers, all of which are eligible to have hysterectomy as treatment. The most common of all gynaecologic cancers is ovarian cancer with an unknown cause, endometrial cancer thought to be caused by increase in estrogen levels and cervical cancer caused by the human papilloma virus (HPV) ⁽¹²⁾.

4.3 Types of Hysterectomy

A patient can undergo three types of hysterectomies: partial, total or radical. Additionally, they can get a bilateral salpingo-oophorectomy done as well.

Partial hysterectomies, otherwise be known as supracervical or subtotal hysterectomies, consist in the removal of the uterus, leaving the cervix intact. It can only be performed via laparoscopic or abdominal hysterectomy ⁽¹³⁾.

Total hysterectomies involve the complete removal of the uterus and the cervix ⁽¹³⁾.

Radical hysterectomy is the removal of the uterus, cervix, ovaries, fallopian tubes with the possibility of also removing the upper portions of the vagina and lymph glands ⁽¹³⁾.

Oftentimes, during total hysterectomy it is removal of the ovaries and fallopian tubes may be necessary. In the case that it is only the ovaries it is called an oophorectomy, if the fallopian tubes are removed it is called salpingectomy. If both are removed, it's called salpingo-oophorectomy ⁽¹³⁾.

4.4 Surgical Options

4.4.1 Vaginal Hysterectomy (VH)

Vaginal Hysterectomy is a surgical procedure that consists in the removal of the uterus through the vagina. It is possible that during the procedure one or both ovaries and fallopian tubes may be removed ⁽¹⁴⁾. VH generally last from one to two hours and hospital discharge usually occurs the same day as the operation. Some patients will need to stay longer due to other medical conditions and/or variables that require further vigilance ⁽¹⁵⁾.

It is the most cost-effective form of the procedure and first choice for hysterectomy if possible ⁽¹⁴⁾. VH are also the least invasive of all the minimally invasive hysterectomy surgical options and less complex than the others ⁽¹⁶⁾.

In relation to abdominal hysterectomies (AH), VH have shorter hospital stay and faster return to normal activities and compared to laparoscopic hysterectomies (LH), no evident difference has been shown in time to return to normal activities or in short term outcomes though LH are less costly than VH ⁽¹⁷⁾.

4.4.2 Laparoscopic-Assisted Vaginal Hysterectomy (LAVH)

Like Vaginal Hysterectomies, LAVH consists in the removal of the uterus through the vagina but with laparoscopic help. Three incisions are made on the abdomen: one in the navel and the other two in the lower abdomen. It allows the surgeon to insert a camera to be able to better see the uterus during the procedure (laparoscope through navel) and the surgical instruments for better handling (though the two other incisions in the lower abdomen) ⁽¹⁴⁾.

Compared to LH, there is no difference in dyspareunia or failure to orgasm after the operation and difference hospital stay duration is not significant. With AH, LAVH has a faster return to normal activities and shorter hospital stay ⁽¹⁷⁾.

4.4.3 Abdominal Hysterectomy (AH)

AH is the most common form of all the hysterectomy surgical procedures ⁽¹⁴⁾. It gives the surgeon a clear view of the organs using a horizontal or vertical incision. Vertical incisions go from the navel to the pubic hairline and horizontal incisions are done directly above the pubic hairline ⁽¹⁴⁾. AH has a longer duration of hospital stay and longer time to return to normal activities than LH and LAVH ⁽¹⁷⁾.

4.4.4 Laparoscopic hysterectomy (LH)

Laparoscopic hysterectomy (LH) consist in removing the uterus in pieces through the three small incisions in the abdomen that are used during the surgery to insert the laparoscope and the other surgical instruments ⁽¹³⁾.

LH has a shorter hospital stay than the rest of the hysterectomy routes as well as faster return to normal activities and postoperative pain. Longer operating times are also possible ⁽¹⁸⁾.

Compared to AH, LH has a result of better body image perception at six weeks' post-operation and higher sexual frequency after six weeks. LH also has fewer wounds ad abdominal wall infections, though there is a higher risk of visceral injury. For both, there is no evidence in difference in cost ⁽¹⁷⁾.

4.4.5 Robotic Assisted Laparoscopic Hysterectomy (RALH)

RALH is performed by a robotic machine controlled by a surgeon in the operating room. It allows the surgeon to see the organs better than the LAVH. This method is still being investigated ⁽¹⁹⁾. It is the most expensive form of hysterectomy ⁽²⁰⁾. There is no evidence of difference in short term outcomes in comparison to LH (15) but there is conflicting evidence in some studies for recovery times for LH and RALH ⁽²¹⁻²²⁾.

4.5 Perioperative complications

Perioperative complications in hysterectomy procedures include problems with general anaesthetic such as nerve damage and allergic reactions that may lead to death, though this is extremely rare. Major invasive procedures will have higher risk of haemorrhage (AH) than others (VH, LH, RALH) and higher risk of infection. Ureter, bowel or bladder damage may occur as well. Ureter damage is fixed during the operation and happens in 1% of cases. With regards to bowel or bladder damage, it adds a higher risk of infection and the woman may need a temporary colostomy or urine catheter to collect the eliminated products ⁽²³⁾.

LH procedures have an added risk of organ damage with the insufflation of carbon dioxide into the abdominal cavity or accidental perforation of abdominal organs aside from the general standardized possible risks of laparoscopic surgery ⁽²⁴⁾.

4.6 Postoperative complications

Infectious problems are the most common postoperative complications for abdominal AH followed by VH and LH ⁽²⁵⁾. Generally causing febrile illness (15% of patients), infections can be treated with prophylactic antibiotics ⁽²⁶⁾. Injury to the genitourinary track occurs up to 2% for major gynaecologic surgeries 75% of which are hysterectomies ⁽²⁵⁾. Injury to the gastrointestinal tract is extremely uncommon (less than 1%). Bleeding complications are also uncommon though it occurs more often in AH followed by LH and VH ⁽²⁵⁾. Vaginal cuff dehiscence is more common in LH than LAVH, AH and VH in that order. Neuropathy, while an important possible complication, has a probability rate of 0.2-2% after major pelvic surgery ⁽²⁵⁾.

Hysterectomies have also been associated with sexual function, urinary problems, depression, hormone deficiencies due to hysterectomy with salpingo-oophorectomy and/or decrease in blood supply to the ovaries because they receive part of their blood supply through the uterus ^(14,23).

4.6.1 Sexual Function

Sexual function in total hysterectomy versus partial hysterectomies are inconsistent with studies by Cochrane showing no difference in sexual satisfaction while other studies show quicker resumption and better function in partial hysterectomies ⁽²⁷⁻²⁸⁾. In VH sexual function may be unaffected or improved ⁽²⁷⁾.

Estrogen deficiency from oophorectomy is shown by studies to elevate the risk of having cardiovascular and mental health problems among others ⁽²³⁾. It leads to worsened climacteric symptoms and sexual dysfunction. In postmenopausal women, sexual function and FSFI scores decrease. (Female Sexual Function Index) therefore if not at risk of having ovarian and/or breast cancer, caution should be taken with this kind of surgery ⁽²⁹⁾.

4.6.2 Urinary Problems

In terms of urinary problems, lower urinary tract symptoms (LUTS) have been found to be more common following VH than AH ⁽³⁰⁾. The incidence of vesicovaginal fistula is 0.1-0.2% (a rare complication) post-hysterectomy and are usually due to injury to the bladder during the surgery ⁽³¹⁾. Risk of urogenital fistula is lower in women under 50 that underwent hysterectomy for benign disease ⁽³²⁾.

A study developed in Boston found that having a hysterectomy increases chances of developing urologic symptoms, mostly lower urinary tract symptoms, painful bladder syndrome, frequency, urgency, overactive bladder and overactive bladder-wet. Results did not vary significantly whether the hysterectomy was preformed through the abdomen or vagina ⁽³³⁾. In other studies, total abdominal hysterectomy and partial hysterectomy do not show differences in incidence of (increase or development) of stress or urge urinary incontinence ⁽³⁴⁾.

4.6.3 Early Menopause

If during hysterectomy, bilateral salpingo-oophorectomy/oophorectomy is preformed, there is an immediate surgical menopause. If ovaries are left in place or only a single-sided salpingo-oophorectomy/oophorectomy is preformed, women will experience menopause earlier on than natural menopause. Younger women undergoing these procedures will experience more symptoms than women who don't ⁽³⁵⁾

4.7 Alternatives to hysterectomy

4.7.1 Fibroids

Surgical alternatives to hysterectomies in Fibroids include Myomectomy consisting in the removal of the fibroid leaving the uterus intact and therefore allowing the woman to get pregnant in the future ⁽⁷⁾. Endometrial ablation, if the fibroid is near the uterine cavity, is the removal of the endometrial lining to control heavy flow in menstruation periods. The woman cannot get pregnant after undergoing endometrial ablation ⁽⁷⁾. Myolysis freezes the fibroid or destroys it via electric currents through a needle that is inserted in that fibroid ⁽⁷⁾. The last surgical option is a Uterine Fibroid Embolization (UFE) based on stopping the blood flow to the fibroid and thus making it shrink. UFE is still being investigated ⁽⁷⁾.

Hormonal alternatives are also available as contraceptives reduce heavy menstrual flow but not fibroid size ⁽⁶⁾.

GnRH Agonists (Gonadotropin-releasing hormone agonists) shrink fibroid size and reduce heavy menstrual flow. GnRH can have numerous side effects, the most important being osteoporosis and is an expensive drug and therefore used during very short periods of time ⁽⁶⁾.

4.7.2 Chronic Pelvic Pain

Surgical options for Chronic Pelvic Pain are variable depending on the cause. If it is caused by endometriosis it is possible to choose the route of keyhole surgery to remove it ⁽⁸⁾.

Medical treatment also depends on the cause of the pain, if one line of treatment does not work, another is tested. This is the case for many women since reaching a clear diagnostic is difficult and often requires many imaging tests and procedures such as endoscopy ⁽⁸⁾.

Pain management can be treated by special pain management clinics dealing with alternative treatments such as acupuncture, relaxation therapies or local anaesthetic injections. Physical therapy is also available for patients with pelvic floor and abdominal myofascial pain ⁽⁸⁾.

4.7.3 Endometriosis

Endometriosis can also be treated surgically by removal of the endometrial implants only. Hysterectomies should always be last resort and even then, requires additional medication for pain relief ⁽³⁶⁾.

NSAIDs (nonsteroidal anti-inflammatory drugs) such as ibuprofen and naproxen are suggested for pain relief. It does not always relieve endometriosis-produced pain and may be combined with other drugs (hormonal control drugs). Hormonal control can also be used for heavy bleeding and pain relief ⁽³⁶⁾. Progestin is recommended when there is no pain relief from NSAIDs or in women that cannot take regular hormonal control drugs. It reduces heavy bleeding and makes the less painful ⁽³⁶⁾.

GNRH Agonists shrink endometrial implant size due to the lack of estrogen produced from the ovaries ⁽³⁶⁾.

4.7.4 Uterine Prolapse

If asymptomatic, it is not necessary to treat it. Healthy habits such as exercising and avoiding lifting excessively heavy objects so to not add more pressure in the pelvic area, are also possible treatments ⁽¹⁰⁾.

Vaginal pessaries may be used, as well. It is a device that is inserted in the vagina that holds the uterus in place. Surgically, sacrospinous fixation can use the ligaments near the uterus to keep it from falling ⁽¹⁰⁾.

4.7.5 Abnormal Uterine Bleeding

Alternative treatments to abnormal uterine bleeding are hormone therapy (birth control, progestin or levonorgestrel IUD) and endometrial ablation. It is possible that the doctor may want to wait on the possibility that it may get better ⁽¹¹⁾.

4.7.6 Cancer

Cervical cancer alternative surgical treatments include cryosurgery, laser, conization, trachelectomy and pelvic exenteration. If spread to the lymph node, lymph node dissection and lymph node sampling will also be possible. Non-surgical alternatives to treating cervical cancer include radiotherapy, chemotherapy and targeted therapy ⁽³⁷⁾.

Ovarian cancer surgical alternative is a debulking surgery aside from the hysterectomy. Radiotherapy, chemotherapy and targeted therapy are also possible ⁽³⁷⁾.

Uterine cancer (uterine sarcoma) can be treated by radiotherapy, chemotherapy and targeted therapy ⁽³⁷⁾.

Vaginal cancer treatment alternatives are vaginectomy, local excision, trachelectomy, vaginal reconstruction. Non-surgery alternatives are radiotherapy and chemotherapy ⁽³⁷⁾.

Vulvar cancer surgical alternatives are laser surgery, excision, vulvectomy, vulvar reconstruction and pelvic exenteration. A non-surgical approach can be made through radiotherapy and chemotherapy ⁽³⁷⁾.

4.8 Patients Attitudes towards surgery

Preoperative anxiety is what most patients experience before undergoing surgery ⁽³⁸⁾. The difference between patient anxiety levels may be determined by age, gender, type and duration of surgery, previous surgical experiences and personal anxiety susceptibility ⁽³⁸⁾. Common preoperative reasons patients may have anxiety are postponement of surgery, harm from mistakes during surgery and not waking up after surgery among others ⁽³⁹⁾.

Anxiety before surgery can also have negative effects on the way anaesthesia works during the operation ⁽³⁹⁾ and have postoperative consequences such as more analgesic administration and longer hospital stay ⁽³⁸⁾. Patients also expressed fear over analgesics not lasting long enough or being effective enough during the operation and feeling pain after the surgery ⁽³⁹⁾.

Patients undergoing surgery under general anaesthesia experienced more anxiety than others. Surgical urgency was another factor that caused anxiety: patients with more urgent operations had less time to mentally prepare for it than less urgent operations resulting in an increase of stress and anxiety ⁽⁴⁰⁾.

4.8.1 Attitudes in gynaecologic surgery

During hysterectomy, Gercek E et al. found Turkish women have fears of losing sexual function and feeling less feminine. They also fear harmful effects of menopause, physical weakness and alterations in relationships with their partners ⁽⁴¹⁾. Women in Latvia thought they would feel less feminine after hysterectomy and that their spouses would find them also find them less feminine and a third of women worried their sexual life will worsen ⁽⁴²⁾. Dutch women preferred the preservation of the uterus compared to hysterectomy and in case of choosing hysterectomy, it was to avoid problems in the future ⁽⁴³⁾. Women that chose uterus preservation reasoned equally that it was less invasive, it is unnecessary to remove a healthy organ and the desire to stay “complete” ⁽⁴³⁾. Yet contrasting to the other two studies, Dutch women body image would remain the same before and after surgery and sexual life would improve ⁽⁴³⁾.

With patients undergoing laparoscopic surgery (LS) for gynaecologic surgery, a little under 4/5 of the people that participated in the study done by Khalil S et al. think that there is better life quality after LS surgery than after laparotomy ⁽⁴⁴⁾. In terms of robotic-assisted surgery (RAS), few patients understood its relation to surgeon decision making and its role during operations. They also think that robotic-assisted surgery requires more training than laparoscopic surgery and almost all perceived RAS to be a valid surgical alternative to laparotomy, as a treatment option ⁽⁴⁴⁾.

Vargas MV et al. found that if robotic surgery was costlier and had longer operating time, patients would opt for laparoscopic surgery. The women that chose RAS stated that they chose it mainly due to shorter recovery times in comparison to laparotomy ⁽⁴⁵⁾. RAS was also chosen by women because it is the most technologically advanced surgical mode in comparison to women that chose laparoscopy because RAS was too new technology for them ⁽⁴⁶⁾.

4.9 Nurses as patients undergoing hysterectomy

In the Netherlands, a study (2008) was conducted to compare the preference for LH to AH between patients and nurses. If the nurses were in a situation where they needed to undergo hysterectomy without the option of VH they would chose LH. With this, there is no difference

between patients and nurses. Nurses also accepted a maximum of 0.5% of risk rate of complications compared to the 1% rate of regular patients. Duration of recovery was generally very important while duration of surgery generally unimportant ⁽⁴⁷⁾.

The Taiwanese Journal of Obstetrics & Gynecology published an article comparing surgical approaches to hysterectomy (LH vs AH) in nurses and non-medical working women that have undergone the operation ⁽¹⁸⁾. The results reached was that nurses tended to go to “high volume hospitals and sought out high-volume gynaecologists for better care” and were more likely to undergo LH ⁽¹⁸⁾.

5. Purpose

During the review of the literature, only two studies were found that compared nurse's attitudes towards both laparoscopic and abdominal hysterectomies, at the same time comparing them to patient's attitudes. Only the study by Huang Y, Huang C, Chueh P and Wu M. for the Taiwanese Journal of Obstetrics and Gynecology touched on the topic of Taiwanese nurses deciding certain surgical approaches due to them having better medical knowledge and then possibly have a better understanding of each of them and comparing that to non-medical working women's attitudes.

The study by Kluivers KB over Dutch women's perceptions of hysterectomy, provided a little bit more insight as to the specifics of nurse's preferences and attitudes over the procedure but not even half of the nurses that took the survey underwent hysterectomies. Another study by Otong-Agu B. talks about patient and nurse's attitudes towards hysterectomies and post-operative pain but centring it around the latter and on abdominal hysterectomy over others (50).

No studies have been found that purely study patients and nurses attitudes towards hysterectomy using a transcultural approach to compare these attitudes in different countries and try to see if culture plays a part in decision making for the women, nurses and patients alike. There are also no studies that determine whether nurse's scientific knowledge influence decision making in respect to hysterectomies.

Considering hysterectomy is the second most popular surgical procedure in the USA and nurses make up most of the health professionals, there are very few studies purely focusing on their attitudes towards the operation and even fewer making cultural comparisons between different countries. This study will be able to close the gap between theory and practice nursing in a way that comparing patients and nurse's attitudes to hysterectomy will help bring understanding to their points of views and allow nurses to meet the patient in a middle ground.

6. Objective

The objective of this study is to introduce the concept of hysterectomy, its indications, complications and alternatives and based on this information, explore the understanding patients and nurses have towards the surgery to later be able to understand the factors that differentiate the two groups to choosing one surgical route over another.

6.1 Specific objectives

- Understand the influence of medical knowledge nurses have in decision making for different surgical approaches in hysterectomy.
- Understand what nurses find more important when undergoing hysterectomy in comparison to patients.
- Compare the influence in different cultures on decision making in nurses and patients undergoing hysterectomy.

6.2 Research questions and hypotheses

- RQ1: Is there a difference between patients and nurses attitudes towards hysterectomy?
 - H₀1: There is no difference between patients and nurse's attitudes towards hysterectomy.
 - H_a1: There is a difference between patients and nurse's attitudes towards hysterectomy.
- RQ2: Is there a relationship between having more medical knowledge and choosing a specific surgical approach?
 - H₀2: There is no relationship between having more medical knowledge and choosing a specific surgical approach.
 - H_a2: There is a relationship between having more medical knowledge and choosing a specific surgical approach
- RQ3: Is culture a deciding factor in decision making for a specific surgical approach?
 - H₀3: Culture is not a deciding factor in decision making for a specific surgical approach.
 - H_a3: Culture is a deciding factor in decision making for a specific surgical approach.

7. Methodology and Methods

7.1 Research Design

This will be a descriptive correlational cross-sectional study. Descriptive (non-experimental) studies allow the environment to go unmanipulated and provides information on specific population characteristics (attitudes) ⁽⁴⁸⁾.

Correlational studies study the relationship between variables, in this case, between nurse's and patient's attitudes towards hysterectomy and previous medical knowledge and the type of surgical approach chosen.

Cross-sectional studies allow estimation of prevalence of a health condition, disease, or pathology and helps learn about attitudes and knowledge the population may or may not have. It also means that it will take place at one certain point in time. It is also relatively inexpensive study designs, especially when compared to prospective studies ⁽⁴⁹⁾. This is ideal to get a good idea of what the differences in attitudes are in this time and moment.

Population-based questionnaires will also allow the researcher to interact with the participants via surveys to ask about their attitudes towards hysterectomies and determine if nurse's previous scientific knowledge is a deciding factor in deciding a certain surgical approach.

If this questionnaire is done in other countries, it will also be a meta-analysis because it will combine data found in different studies on patient-nurse attitudes towards hysterectomy, not only from the amount of times this study is done in different countries.

Duration of the study will be 5 weeks to collect and analyse patient-nurse data.

7.2 Population and Sampling

The target population for this study will consist of patients from all public and private hospitals world-wide that have undergone either laparoscopic or abdominal hysterectomy within the last year (of this study) and female nurses that have been working in a medical-surgical field and/gynaecology and obstetrics units for at least a year.

Due to the impossibility of accessing all those people, the accessible population will consist of patients from La Paz University Hospital, Madrid, that have undergone laparoscopic or abdominal hysterectomy within the last year (of this study) and female nurses that work in the medical-surgical field and/or gynaecology and obstetrics units for at least a year.

For later cultural comparison, accessible population in Taipei will consist of patients and nurses of the same criteria mentioned above in National Taiwan University Hospital, Taipei.

Sampling

The most appropriate sampling method for this study is a non-probability convenience strategy due to easy participants accessibility and it is non-random characteristic. This fits well because participants need to fulfil inclusion requirements (non-random) and be ready available and willing to take part in the study (convenience). Snowball sampling may also be used if participants recommend study participation to other people they may know that fit their same criteria.

6.2.1. Inclusion and exclusion criteria

Inclusion criteria for patients include:

- Ages between 18 and 55, both inclusive.
- Indication for hysterectomy due to benign disease only.
- Had undergone or will undergo hysterectomy by either via laparoscopy or abdominal surgical approaches.
- Have signed the consent form and handed it in to the researcher.
- Expressed desire to participate in the study
- Being female.

For nurse's inclusion criteria include:

- Be in possession of a valid Bachelor of Science in Nursing degree (BScN).
- Being female.
- Specialized in gynaecology, obstetrics and surgery and/or working in a place (ej. Ward, operation room or clinic) where any of these three specialities are predominant, both with at least 1-year experience.
- Have signed the consent form and handed it in to the researcher.
- Expressed desire to participate in the study.

Exclusion criteria for patients include:

- Hysterectomy via the vaginal surgical approach.

7.3 Variables

7.3.1 Quantitative variables

- **Age (in years):** Quantitative discrete variable. Data will be collected in a sociodemographic characteristics questionnaire. Necessary to determine if attitudes are age dependent.
- **Time spent working as a nurse (in years):** Quantitative continuous variable. Data will be collected in the professional work questionnaire. Necessary to determine if years of experience influence in different attitudes.
- **Duration of hospital stay (in days):** Quantitative discrete variable. Data will be collected in the personal characteristics questionnaire. Necessary to determine if number of days at the hospital is and influencing factor in decision making for a certain surgical approach.
- **Years working in current service (in years):** Quantitative continuous variable. Data will be collected in the professional work questionnaire. Necessary to determine if years working in a specific ward/service influences decision making in surgical approaches.

7.3.2 Qualitative variables

- **Gender:** Qualitative binary variable. Options include: “Male” and “Female”. Data will be collected in the sociodemographic characteristics questionnaire. Only for nurse participants. Necessary to differentiate and exclude male nurses.
- **Relationship status:** Qualitative nominal variable. Options include: “married”, “single”, “dating”, “divorced” and “widowed”. Data will be collected in the sociodemographic characteristics questionnaire. Necessary to understand the relation between relationship status and other variables in relation to attitudes towards hysterectomy and its cultural implications.
- **Religion:** Qualitative nominal variable. Options include: “Christian”, “Catholic”, “Muslim”, “Buddhist”, “Hindu”, “None” and “other”. Data collected in the sociodemographic characteristics questionnaire. Necessary in the comparison between cultures to see the influence of religion over surgical approach and other hysterectomy attitudes variables.
- **Birthplace:** Qualitative and nominal variable. Options include: “Europe”, “Middle East”, “Asia/pacific Islands”, “Africa”, “North America” and “South America”. Data will be

collected in the sociodemographic characteristics questionnaire. Necessary to compare cultures attitudes towards hysterectomy and see if culture influences surgical approach decision making.

- **Nursing speciality:** Qualitative nominal variable. Options include: “Gynaecology and obstetrics”, “surgery”, “recovery” and “Other”. Data will be collected in the professional work characteristics questionnaire. Necessary to see if nursing speciality influences decision making for surgical approach.
- **Indication for surgery:** Qualitative nominal variable. Options include: “Fibroids”, “abnormal uterine bleeding”, “uterine prolapse”, “chronic pelvic pain”, “endometriosis” “cancer” and “other”. Data will be collected in the personal characteristics questionnaire. Necessary to understand the relationship between indication for surgery and surgical approach as well as relation with other variables such as body image, sexuality perceptions and perceptions in relationships post-operation.
- **Education (nurses):** Qualitative ordinal variable. Options include: “Bachelor Science in Nursing”, “Master” and “Other”. Data will be collected in the professional work characteristics questionnaire. Necessary for understand the relation between level of education and attitudes as well as preference for surgical approach.
- **Prior hysterectomy (nurses):** Qualitative binary variable. Options include: “yes” and “no”. Data collected in the personal characteristics questionnaire. Necessary to determine if having undergone hysterectomy affects their attitudes towards the operation.
- **Preferred approach (nurses):** Qualitative nominal variable. Options include: “LH (laparoscopic hysterectomy)” and “AH (abdominal hysterectomy)”. Data will be collected in the personal characteristics questionnaire. Necessary to understand which one was preferred over the other.
- **Hysterectomy surgery approach (patients):** Qualitative nominal variable. Options include: “LH (laparoscopic hysterectomy)”, “AH (abdominal hysterectomy)” and “Don’t know”. Data will be collected in the personal characteristics questionnaire. Necessary to understand the which was chosen more over the other.
- **Removal of cervix:** Qualitative binary variable. Options include: “yes”, “no” and “don’t know”. Data will be collected in the personal characteristics questionnaire. Necessary to determine if the influences different attitudes towards hysterectomy.

- **Removal of ovaries:** Qualitative binary variable. Options include: “yes”, “no” and “don’t know”. Data will be collected in the personal characteristics questionnaire. Necessary to determine if this influences different attitudes towards hysterectomy.
- **Previous surgeries:** Qualitative binary variable. Options include: “yes” and “no”. Data will be collected in the personal characteristics questionnaire. Necessary to determine if having undergone a previous surgery influences the attitudes towards hysterectomy.
- **Body image and sexuality perception:** Qualitative ordinal variable. Options include: “strongly disagree”, “disagree”, “neutral/indifferent”, “agree” and “strongly agree”. Data will be collected in the perceptive-emotional characteristics questionnaire. Necessary to understand the perceptions of body image and sexuality in participants regarding hysterectomy and determine if they are different with one approach or another.
- **Perception of relationship with partner after surgery:** Qualitative ordinal variable. Options include: “strongly disagree”, “disagree”, “neutral/indifferent”, “agree” and “strongly agree”. Data will be collected in the perceptive-emotional characteristics questionnaire. Necessary to understand the emotional attitudes patient-nurses have in this aspect in respect to hysterectomies. Determine if perception of relationships is different with one approach or another.
- **Importance of avoidance of complications:** Qualitative ordinal variable. Options include: “strongly disagree”, “disagree”, “neutral/indifferent”, “agree” and “strongly agree”. Data will be collected in the perceptive-emotional characteristics questionnaire. Necessary to understand if avoidance of complications is an important factor in deciding which type of surgical approach to undergo. Necessary to compare between patient-nurse groups.
- **Importance of avoidance of abdominal scars:** Qualitative ordinal variable. Options include: “strongly disagree”, “disagree”, “neutral/indifferent”, “agree” and “strongly agree”. Data will be collected in the perceptive-emotional characteristics questionnaire. Necessary to understand if avoidance of abdominal scars is an important factor in deciding a certain surgical approach. Necessary to compare between patient-nurse groups.
- **Importance of duration of recovery:** Qualitative ordinal variable. Options include: “strongly disagree”, “disagree”, “neutral/indifferent”, “agree” and “strongly agree”. Data will be collected in the perceptive-emotional characteristics questionnaire. Necessary to understand if duration of recovery is an important factor for participants in deciding a type of surgical approach. Necessary to compare between patient-nurse groups.

- **Influence of religion or beliefs:** Qualitative ordinal variable. Options include: “strongly disagree”, “disagree”, “neutral/indifferent”, “agree” and “strongly agree”. Data will be collected in a cultural characteristics questionnaire. Necessary to understand the influence religion or belief has on decision making for surgical approaches and on other variables such as perception of relationships with partner after surgery, body image and sexuality perception. For the cultural comparison side of the study.
- **Taboo subject among others:** Qualitative ordinal variable Options include: “strongly disagree”, “disagree”, “neutral/indifferent”, “agree” and “strongly agree”. Data will be collected in a cultural characteristics questionnaire. Necessary to understand if in some cultures hysterectomies are tabooer than others. For the cultural comparison side of the study.

7.4 Data collection

For nurses, recruitment for participants will be done after getting permission from the hospital and head of department to start the study and then to send a corporative email to all nurses working in surgery, not only operating rooms but also in anaesthesia and in recovery, and obstetrics and gynaecology wards (morning, afternoon and night shift nurses) with an invitation link to do the survey on Survey Monkey, which is the chosen platform for this study.

Before starting the survey, there will be an informed consent form which the participant has to agree to and sign to proceed to answer the questions. There will also be a detailed explanation of the study to allow as much freedom and understanding to the patients and the nurses in decision making to fill the survey or not. In the case that the patient or the nurse do not have a complete understanding of the language, an English version will be provided with the same questions, personally elaborated and translated by the researcher him/herself.

Reason for involvement in the survey will also be explained before answering questions which is to contribute to a better understanding to the differences between patients and nurse’s attitudes towards hysterectomy so to close that gap, if there were to be differences, and help better nursing care in this area.

At the end of the survey, if for any reason the participant wanted to withdraw, there would be an option to do so. Researcher contact details would also be provided in the case participants wanted to get in touch with them. Participants would also get a copy of the survey and their answers, if they wished.

Since convenience sampling will be used in this test, at the end of the survey there will also be an option to send the survey to other nurses and patients of the same condition to take the survey.

No harm will come to the participants of this study as all personal identifying information will be removed and replaced by a number in the case that that information appears in any of the survey forms and all data will be kept securely by the researcher only.

With patient participants, knowing which patients have gone or will undergo hysterectomy means that there needs to be an access to hospital database to see which patients could possibly undergo the study. The researcher must get permission from the hospital to see that data. Once permission has been granted, emails will be sent out and follow same instructions mentioned above.

7.4.1 Question organization

- **Sociodemographic characteristics questionnaire.** Collects information on the following variables: age, birthplace, gender, religion, relationship status, education.
- **Personal characteristics questionnaire.** Collects information on the following variables: indication for surgery, prior hysterectomy, previous surgeries, surgical approach, removal of ovaries, removal of cervix, preferred surgical approach and duration of hospital stay.
- **Professional work questionnaire (only for nurse participants).** Collects information on the following variables: nurses speciality, education level and time spent working as a nurse and years working in current service.
- **Perceptive-emotional characteristics questionnaire:** Collects information on the following variables: body image and sexuality, perception of relationship with partner, importance of avoiding complications, importance of avoiding abdominal scars, importance of duration of recovery.
- **Cultural characteristics questionnaire:** collects information on the following variables: influence of religion or beliefs, taboo subject or not.

7.4.2 Scales

- **Likert Scale:** usually is a 5- or 7- point ordinal scale for participants to rate their agreement or disagreement with a statement ⁽⁵¹⁾. In this study there will be a 5- point Likert scale for qualitative variables: importance of duration of recovery, importance of abdominal scars, importance of avoidance of complications, influence of religion or beliefs, body image and sexuality perception and perception of relationship with partner after surgery.

7.5 Research Timeline

To plan this study effectively, a timeline was made (Annex 1) with the stages of the study along with the months and their respective activities and objectives. The total duration of the study was 15 months.

Stage one of the study consists in deciding and finalizing specific research questions and the subject it was going to be on based on personal interest and experience in the field.

Stage two consists in the review of the literature available on hysterectomies and patients and nurse's attitudes towards hysterectomies as well as taking note on how many studies have been done on the subject. For this, research on available literature was done on scientific search engines, scientific online libraries, official government and university health sites and international scientific medical journals with impact factors were also consulted. Over a 75% of the articles consulted were published in the last 5 years, both in Spanish and in English. All types of research design were included.

Table 2: Search Engines and search terms for this study's scientific research

Search Engines and Scientific Journals	Search terms and key words
<i>Search engines and online libraries</i> <ul style="list-style-type: none">• MEDLINE• SCIELO• PUBMED• Science Direct• ResearchGate• Nature	<ul style="list-style-type: none">• Hysterectomy<ul style="list-style-type: none">○ Laparoscopic hysterectomy○ Abdominal hysterectomy○ Vaginal hysterectomy○ And alternatives○ And indication○ And complication• Nurses & patients attitudes or preference and hysterectomy

Stage three consists in the establishment and planning of the study in all areas such as defining target and accessible population, knowing and defining variables and developing an adequate research design.

Stage four, after getting permission from the investigation committee of the School of Nursing and Physical Therapy San Juan de Dios, step will be taken to get valid permissions to carry out the study at La Paz University Hospital. When everything is approved by the hospital, the corresponding informed consent forms will be handed out and retrieved before subsequently handing out the adequate surveys.

Stage five: recollection of surveys and initializing data analysis to draw conclusions via SPSS statistical program.

Stage six: submission and publication of report and end of study.

7.6 Data analysis

The researcher will use the Statistical Package for Social Sciences program, otherwise known as SPSS, for all data analysis and information received through the survey handed out to participants. It will be a completely descriptive study and relations between variables will be done through chi-squared test or linear regression for both quantitative and qualitative variables.

If personal data appears in during data analysis, names and dates of birth will be removed and replaced by a series of identifying numbers.

8. Ethics and confidentiality

Ethical approval to begin this study will be done so after the thorough review and approval of the Pontifical University of Comillas Investigation Committee.

Informed consent form will be given after permission is granted to the researcher to do the study by the hospital. Emails will be sent out to nurses and patient participants with a link to access the survey site. Before taking the survey, the informed consent formed must be signed to proceed.

All participants that are willing to participate in the study will be given a written consent form that details an explanation of the study, motive for why participation is recommended and use of personal data, which they must sign prior to beginning the survey. They will also be informed that no monetary compensation will be given. Participants may abandon the study whenever they wish without consequence.

All participants that agree to take the survey and participate in the study will be assured that their personal identifiable data will be kept private and will not be shared with any persons or entities and the researcher will never distribute or reveal any of the personal information shared with him/her for this study.

The researcher will be the only person responsible for all documents and those with personal identifiable data will be stored under key (if in paper format) or in a secured password protected computer folder through the study period for safe keeping.

At the end of this document in Annex 2, the consent form given to the participants will be available to consult. The survey questionnaire can be consulted in Annex 3.

9. Limitations of the Study

The limitations of this study are the ones related to having an observational correlational cross-sectional study or related to meta-analytic studies in case of future cultural comparison.

Cross-sectional studies, due to their “snapshot” like nature, make it difficult to study causal relationships like prospective studies do. These studies also have a higher probability of bias because the participants attitudes may change in a way that is not possible to know because it is a one-time study. Correlational studies, like cross-sectional studies do not explain causality between variables but merely establish an existence or non-existence of relationships between them.

Limitations of descriptive and observational type studies are participants willing or unwilling untruthfulness and researchers wording choice in questionnaires that can create bias. Results and studies generally cannot be repeated.

In terms of population sampling, the method of choice for this study is a non-probability convenience sampling type meaning participants are chosen by accessibility. Snowball sampling will also be used by asking participants to recommend the study to others in the same situation to amplify the number of participants in the study. Focus on a central place (La Paz University Hospital) may miss other clinics and health centres that may be associated with the hospital but are in other places and are hard to access and therefore a number of participants are missed, and total sampling frame is unknown. Snowball sampling has disadvantages in the impossibility of determining errors or make inferences based on that participant population sample.

10. Future lines of investigation

Given the fact that this is an ambitious project and there are few resources available to conduct this study in a similar manner across many countries. The researcher welcomes other to take initiative to invest time in this subject and in this study as it be a great contribution to understanding the different perceptions between patients and nurses and will allow an approximation in theory and practical care.

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Annex

Annex 1: Research Timeline

Table 1: Research timeline

Stage	Month	Activity	Objective
1	05.2017 - 06.2017 (1 month)	<i>Decide and finalize research question</i>	To select a research subject.
2	06.2017 - 12.2017 (6 months)	<i>Review of the literature:</i> Conduct extensive research on literature available on hysterectomies: indications, complication (peri and post-operative) and alternatives as well as patients attitudes and nurses towards gynaecologic surgery focusing on hysterectomies.	To determine how much literature there is on patients and nurse's attitudes towards hysterectomy and how many of those studies make comparisons with other countries to see if there is cultural difference in decision making.
3	12.2017 - 03.2018 (3 months)	<i>Establishment and planning of the study:</i> Lay out objectives, ethical aspects and methodology including: research design, population and sampling, variables, data collection, research timeline development and data analysis.	To organize the stages of the study and establish clearly all the methods and ways the study will be carried out.
4	03.2018 - 05.2018 (2 months)	<i>Execution of the study:</i> Distribute surveys and questionnaires relevant to the study to patients and nurses.	To collect patient-nurse information to later draw adequate conclusions.
5	05.2018 - 07.2018 (2 months)	<i>Data Analysis:</i> Analyse information received through surveys and questionnaires handed out to patients and nurses to draw appropriate conclusions.	To draw conclusions in relation to differences and/or similarities in nurse's attitudes towards hysterectomies. See if there is an influence between having previous scientific knowledge and deciding on a specific surgical approach.
6	07.2018 - 08.2018 (1 month)	<i>Submission and publishing of report.</i> <i>End of study.</i>	

Annex 2: Informed Consent form

Consent and information form for participation in a survey for

“A transcultural approach to nurse’s attitudes towards hysterectomy: a cross-sectional study”

I volunteer to participate in a survey for a research project by Investigator **Sandra Rico** from the San Juan de Dios School of Nursing and Physical Therapy.

I understand that this project is designed to understand the differences and similarities of patients and nurse’s attitudes towards hysterectomy and their choices to a specific surgical route as well as making a comparison between different cultures to get a greater understanding of this operation in all parts of the world.

1. My participation is voluntary, and I understand that there will be no monetary remuneration for my participation but will be a great contribution to trying to bridge the gap between theoretical and practical nursing and having greater understanding of different cultures approaches to Hysterectomy.
2. Survey includes questions with a sociodemographic, personal, professional, perceptive-emotional and cultural nature and takes around 10 minutes to complete.
3. I may withdraw from the survey whenever I wish without consequence
4. All data from this project will be kept securely under lock with only the main researcher having access to its content.
5. No foreign institutions, entities or persons will have access to the information in the survey and participation in this study will be kept anonymous.
6. All personal identifiable data will be removed and will be replaced by a code number to ensure data protection and anonymity.
7. Participation in this study will not cause any psychological nor physical harm.

I have read and understood all the information and conditions provided to me and had all my questions answered satisfactorily. I voluntarily agree to participate in this study and have been given a copy of this consent and information form.

Date: ____ / ____ / ____

Signature of the participant

Signature of the investigator

Annex 3: Survey Questionnaire

Instructions: In parts A and B participants must answer the questions by marking an x on the appropriate tick box and write in the lines that have been given. Part B must only be filled in by nurses.

On the table given on the following page, participants must mark with an “X” their opinion that fits best with the statement given. From questions 4-14, nurses must answer as if they had undergone the operation.

A. Age____ Birthplace_____ Gender: Male Female

Relationship status: Married Single Divorced Widowed Dating

Religion: Muslim Christian Catholic Buddhist Hindu None Other

Previous surgeries Yes No

Indication for hysterectomy: Fibroids Abnormal uterine bleeding Uterine prolapse

Endometriosis Chronic pelvic pain Cancer Other

Surgical approach: LH (Laparoscopic hysterectomy) AH (Abdominal hysterectomy)

Don't know

Removal of cervix: Yes No Don't know

Removal of ovaries: Yes No Don't know

Days in hospital after surgery: 1 2 3 4 5 6 7 8 9 10≤

B. Education Level: Bachelor Science in Nursing (BSN) BSN & Master

Other: _____

Years working as a nurse: _____

Current nursing field: Gynaecology & Obstetrics Surgery Recovery Other: _____

Years working in current service: _____

Prior hysterectomy: Yes No

Preferred approach: LH (Laparoscopic) AH(Abdominal)

		Strongly disagree	Disagree	Neutral/ Indifferent	Agree	Strongly agree
1	Avoiding complications during and after surgery is more important to me than how invasive the surgery is.					
2	Avoiding abdominal scars is a deciding factor to decide which type of hysterectomy to undergo.					
3	Duration of recovery is an important deciding factor in deciding which type of hysterectomy to undergo.					
4	I feel less like a woman after the operation.					
5	I feel uglier since the operation.					
6	I feel more confident in myself after the operation.					
7	I feel worthless as a woman after the operation.					
8	Getting my uterus removed has affected my relationship with my partner.					
9	My partner has been supportive of me and my decisions regarding the operation.					
10	I am worried I will not be able to have a good relationship with future partners because of this operation.					
11	In my country, this type of operation is not talked about and is considered shameful and a disgrace.					

12	My faith and religion has influenced my choices regarding the operation					
13	I am sad because I will no longer be able to have kids.					
14	I can openly talk to my family and friends regarding my worries about the operation					