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How can life go on after trauma resulting in infertility?

- a qualitative literature review on women's experience of emergency hysterectomy and the return back to everyday life

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BACHELOR'S THESIS

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Abstract

Most pregnant women are expecting to return home in good condition together with their baby after delivery. Unfortunately, there are women who will have to undergo an emergency hysterectomy in order to save their lives, removing the possibility of ever becoming pregnant again.

The aim of this thesis is to through a mixed method literature review map out the experience of women in childbearing age, having undergone an emergency hysterectomy following child birth, may it be vaginal or through caesarean section. Furthermore, the purpose is to describe the experience of the recovery period as well as the return to everyday life.

In this literature review, 10 articles were analysed in a content analysis, using an inductive approach. The study was made in order to develop the nursing care and understanding of these women.

The answer to the questions of the study is shown in sub-categories which describe the first emotions that the women experience. These emotions include fear of the uncertain, angst at the ICU and worry for the new-born baby. Later difficulties in the recovery combined with motherhood, such as breastfeeding, mental health, support from the family and the problems the women have in handling many areas of their lives are also presented.

The results indicate that there is suffering and difficulties in adapting to the new life situation. More studies should be conducted and better support offered for these women.

Language: English Key words: emergency hysterectomy, women's experience, caesarean section, suffering, unplanned infertility

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EXAMENSARBETE

Författare: Petra Hannus

Utbildning och ort: Sjukskötare, Vasa

Handledare: Eva Matintupa

Titel: Hur kan livet gå vidare efter trauma som resulterar i infertilitet? - en kvalitativ litteraturstudie om kvinnors erfarenhet om att genomgå en akut hysterektomi och återvända till vardagslivet.

Datum 1.6.2017 Sidantal 24 Bilagor 2

Abstrakt

De flesta gravida kvinnor förväntar sig att i gott tillstånd tillsammans med sin bebis återvända hem efter förlossningen. Tyvärr så finns det kvinnor som kommer att genomgå akut hysterektomi för att överleva, och därmed fråntas möjligheten att någonsin bli gravida igen.

Syftet med denna studie är att genom en mixedmetod litteraturstudie kartlägga erfarenheter hos kvinnor i barnafödande ålder som genomgått en hysterektomi efter en förlossning, må den vara vaginal eller genom kejsarsnitt. Därtill är syftet även att beskriva erfarenheter av återhämtningstiden och återgåendet till det vardagliga livet.

I denna litteraturstudie analyserades 10 artiklar med innehållsanalys, genom ett induktivt närmelsesätt. Studien är gjord för att utveckla vården och förståelsen för dessa kvinnor.

Svaret på studiens frågor redovisas i sub-kategorier som beskriver de första känslorna kvinnorna upplever. Dessa känslor innefattar skräck för det osäkra, ångest på intensivvårdsavdelningen och oro för det nyfödda barnet. Även senare svårigheter i återhämtningen i kombination med morderskapsrollen presenteras, så som amning, mental hälsa, stöd av familjen samt att kvinnorna har problem att hantera många olika områden i sina liv.

Resultaten visar att det finns lidande och svårigheter vid anpassningen till den nya livssituationen. Mera studier borde göras och bättre stöd borde erbjudas för dessa kvinnor.

Språk: Engelska Nyckelord: akut hysterektomi, kvinnors upplevelser, kejsarsnitt, lidande, oplanerad infertilitet.

OPINNÄYTETYÖ

Tekijä: Petra Hannus
Koulutus ja paikkakunta: Sairaanhoitaja, Vaasa
Ohjaaja: Eva Matintupa

Nimike: Kuinka elämä voi jatkua hedelmättömyyteen johtaneen vamman jälkeen?
- kvalitatiivinen kirjallisuuskatsaus koskien naisten kokemuksista akuuttia kohdunpoistoa ja paluuta arkeen.

Päivämäärä 1.6.2017 Sivumäärä 24 Liitteet 2

Tiivistelmä

Suurin osa raskaana olevista naisista olettaa palaavansa kotiin hyväkuntoisina vauvansa kanssa synnytyksen jälkeen. Valitettavasti on naisia jotka säilyäkseen hengissä joutuvat läpikäymään akuutin kohdunpoiston, mikä poistaa mahdollisuuden tulla uudelleen raskaaksi.

Tämän tutkimuksen tarkoituksena on kartoittaa monimenetelmällisen kirjallisuuskatsauksen avulla naisten kokemuksia akuutista kohdunpoistosta synnytyksen yhteydessä, joko alateitse tai keisarinleikkauksella. Lisäksi tarkoituksena on kuvata naisten toipumisjakson kokemuksia sekä paluuta arkeen.

Tässä kirjallisuuskatsauksessa analysoitiin kymmenen artikkelin sisältöä käyttäen induktiivista lähestymistapaa. Tutkimus tehtiin kehittämään näiden naisten tilanteen ymmärrystä sekä heidän saamaansa hoitoa.

Vastaukset tutkimuksen kysymyksiin löytyvät ala-kategorioista jotka kuvaavat naisten kokemia ensituntemuksia. Nämä tunteet sisältävät epätietoisuuden pelkoa, ahdistusta teho-osastolla ja huolta vastasyntyneestä. Esille tulee myös myöhemmät haasteet toipumisessa yhdistettynä äitiyteen, kuten imettämiseen, mielenterveyteen, perheen osoittamaan tukeen ja ongelmiin joita naiset kohtaavat hoitaessaan monia elämänsä osa-alueita.

Tulokset osoittavat, että uuteen elämäntilanteeseen sopeutuminen tuottaa kärsimystä ja vaikeuksia. Lisätutkimuksia olisi syytä tehdä sekä tarjota näille naisille parempaa tukea.

Kieli: Englantia Avainsanat: akuutti kohdunpoisto, naisten kokemukset, keisarinleikkaus, kärsimys, odottamaton hedelmättömyys

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1 Introduction

In 2015 there were 55 759 children born in Finland. Out of these 15,9% were born during Caesarean section (C-section), both planned and acute. Out of all first time mothers (primiparas), 20% delivered through C-section. But only 13% of all multiparas (≥2 deliveries) delivered through C-section. While C-section can be lifesaving for the mother and/or her child when complications during delivery leave no other option, and while medicine in today's society is far advanced, there are still risks connected to repeated C-section performances.

When you head for the hospital to deliver your long-awaited child, one of the last things that would probably be on your mind is that you might have to leave the hospital without the ability to ever become pregnant again. And this without having made an active decision towards that end. However, complications during birth can lead to life threatening conditions where the only way to save the mother and/or the child is to perform a hysterectomy. That is, removing the mother's womb. In Finland there are no statistics of how many women undergo emergency hysterectomy due to complications during pregnancy or birth. But every C-section increases the risk by a little bit for the following pregnancy. It also increases the long well know complication where the woman is losing large amount of blood, meaning more than one litre, in a rapid, uncontrollable bleeding.

While there are many support groups for the fertile woman both before and after a planned hysterectomy, physical as well as on-line, I would like to further explore the experiences of women in childbearing age who have undergone emergency hysterectomy and who therefore don't have the possibility to mentally prepare for the consequences prior to the procedure.

As a nursing student, I have a special interest in surgical nursing and surgical recovery. I also harbour an interest in midwifery, hence my choice of topic for this study. I have some working experience from working at a post-surgical ward, but nothing related to emergency hysterectomy and I was therefore quite a beginner when I started my research on the topic.

2 Background of the Study

The word hysterectomy has its roots in Greek and Latin and comes of the words; *hyster* for womb and *ectomy* for "removal of" through surgery. The following chapter will explain the concepts of hysterectomy and emergency hysterectomy, as well as give a short introduction to the reasons for having to under an emergency hysterectomy.

2.1 Hysterectomy

Hysterectomy is the surgical procedure of removal of the womb. There are many different reasons for undergoing a hysterectomy. They are however always seen as the last option, and always conducted after the trying of another less invasive method (in case of non-emergency situations). According to Trupin it is only 10% of the hysterectomies that are conducted due to cancer. The most common non-emergency reason for hysterectomy is uterine fibroids and pelvic relaxation. (NHS, 2014, Trupin, 2015).

The different hysterectomies are connected to the reason to undergo the surgery, as well as the severity, if possible wish for further reproduction, age, personal preferences and medical history. The most commonly performed procedure is total hysterectomy, where the uterus and cervix are removed. In subtotal hysterectomy the main body of the uterus is removed, but leaves the cervix in place. The total hysterectomy with bilateral salpingo-oophorectomy means that the uterus, cervix, fallopian tubes (salpingectomy) and the ovaries (oophorectomy) are taken away. And as for the radical hysterectomy, besides what was mentioned in the previous one, also includes taking away part of the vagina, lymph glands and fatty tissue. (NHS, 2014, Trupin, 2015).

Hysterectomy can be conducted in three ways. The uterus can be removed through the vagina by making a cut at the lateral porix, so called vaginal hysterectomy. In abdominal hysterectomy the surgeon makes a cut in the lower abdomen through which the uterus is removed. For the laparoscopic hysterectomy there are several small cuts made in the abdomen, through which the uterus is also removed. In laparotomy hysterectomy, the womb is removed through a larger cut in the stomach, which is more common during trauma or complications postpartum. The abdominal route of hysterectomy is still the most common route of hysterectomy, even though there are evidence supporting that the other two routes being better due to their less invasive nature, and the vaginal hysterectomy being more cost-efficient. Dr. Skinner and Dr. Delancey provides in their article a structured way of

determine the route of the hysterectomy. They describe that there are many factors influencing the decision which route is the best. (NHS, 2014, Skinner & Delancey, 2013).

2.2 Emergency Hysterectomy

The first successful report of an emergency hysterectomy where both mother and child survived is from 1876, published by Edward Porro. Emergency hysterectomy is most commonly described as the act of permanently removing the womb following a vaginal birth or C-section (>20 gestation weeks). If it is performed peripartum it performed within 24 hours from birth, and postpartum it can be performed up to 6-12 weeks, but then always due to uncontrollable peri- and/or postpartum haemorrhage (PPH). Primary PPH means a blood loss bigger than 500 ml in vaginal birth, and over 1000 ml in C-section within the first 24 hours. Secondary PPH happens 24 hours after delivery up to 6-12 weeks after delivery. There are several conservative interventions which should be performed first for attempting to stop the bleeding. Hysterectomy is always the last resort in order to save the mother's life. (Holmgren, 2014, pp 521, 524, Omole-Ohonsi & Olainka, 2012, p 955, Pradhan & Shao, 2014, pp. 668, 672, Awan et al. 2011, p 210).

Awan et al (2011, p 210) tell that in the 1980s the leading reason for emergency hysterectomy was uterine atony. But improved conservative methods in treatment for uterine atony, together with increased rates of C-section, have given other more common causes for emergency hysterectomy. In the Australian study conducted by Awan et al (2011, p 212) conducted, 58% of emergency hysterectomies were due to placenta accrete, 20% due to placenta praevia, 12 % due to uterine atony and 6% due to uterine rupture. Roethlisberger et al (2010, p 1042) found in their Austrian study that the main reasons where placenta accrete 14%, placenta accrete at the same time as placenta praevia 41%, uterine atony 7% and uterine rupture 3%. Pradhan and Shao's (2014, p. 672) study in a Chinese hospital gave placenta accreeta the main reason on 48%. Whereas Omole-Ohonsi and Olainka's (2012, p. 957) study conducted in Nigeria showed that uterine rupture being the major reason to emergency hysterectomy on 73%, placenta accrete 14%, uterine atony 7% and placenta previa 7%. This shows indications that the more common reasons for emergency hysterectomy in a specific region depend on how advanced healthcare is available, as well as the sociodemographic of the population.

The total blood loss (TBL) varies from case to case, study to study, but Awan et al (2011, p. 212) reports a TBL on 4500 ml (2750-7000 ml) with all women needing blood transfusion. Roethlisberger et al (2010, p. 1042) tell of a median TBL on 1400 ml (200-5500 ml) where the majority (85%) needed blood transfusing. Omole-Ohonsi and Olainka (2012, p 959) have similar numbers, 86,7%, receiving blood transfusion. Pradhan and Shao tell that half the women in their study were treated in the intensive care unit (ICU).

2.2.1 Abruptio Placentae

This means that the placenta disrupts too early, before the foetus is born. It can be either completely or partially, which also determines the degree of severity. It usually occurs during the later stages of pregnancy, and may also occur during birth. According to Hellgren, Bremme and Lindqvist (2014, p. 329) this complication occurs in on of 100-200 pregnancies. The exact reasons are unknown, but some contributing reasons can be hypertension during pregnancy, preeclampsia, gestational diabetes or smoking. Easy cases (90%) only a small outer area of the placenta has disrupted, and leaves a small bleeding that exits from the womb. Here there's a small increased risk of death of the foetus. In moderately difficult cases there is between a third to half the placenta which is disrupted, usually quite central. Initially the bleeding is kept in between the wall of the uterus and the placenta, but it will slowly find its way out as well. In severe cases more than half of the placenta is disrupted, and usually the woman is bleeding more internally than it can be observed on the outside. The general condition of the woman is that she is out of her normal ways, in shock and coagulation-problems can occur. Unfortunately, this often leads to the death of the foetus. More severe abruptio placentae leads to delivery of the baby through C-section most of the time, which might for the next pregnancy lead to even more severe complications. (Kaplan, 2009a, pp 142-143, Hellgren et al, 2014, pp 329-330, Sweet& Tiran, 1999, p. 526-530).

2.2.2 Placenta Praevia

Placenta praevia means that the placenta is party or completely covering the internal os. This cover makes it a contraindication for vaginal birth There are numbers saying that this is the reasons for about half of all the bleedings in the third trimester. Higher gestational age, previous C-section and higher parity increases the risk of placenta praevia. One previous C-section increases the risk to 1-4%, and after that it increases with each new section, and after four or more sections the risk is 10%. Placenta praevia is divided into four types. Type one

means that the placenta is placed higher up, but with a bit lower than optimal on the lower segment. Type two means that the placenta reaches, but does not cover the internal os. The major difference between type three and four is on how much they cover the lower part of the uterus. The location of the placenta can be discovered quite early with ultrasound. However, the exact location of the placenta is not known until the later stage of the third trimester, as it can still migrate a bit during the beginning of the third trimester. It can be very dangerous to perform vaginal examination if the location of the placenta is unknown, if the placenta is low the vaginal examination can trigger bleeding. If the foetus has reached week 38, and the placenta is covering the internal os, a C-section will always be performed. (Sweet& Tiran, 1999, p. 522-526, Hellgren et al, 2014, pp 331-332, Kaplan, 2009a, pp 145-148).

2.2.3 Uterus Rupture

In the West world uterus ruptures are more rare, because of the developed monitoring of pregnant women and of the more advanced medicine. The maternal death rate is very low, and the perinatal mortality is below 10%. But in development countries it has a higher prevalence, with a higher risk of mortality, both for the mother and the child. In Africa the maternal death rate due to uterus rupture is about 20%, and the perinatal mortality is estimated to about 85%. For women, in the West, who have previously undergone C-section, the prevalence is about 1 %. More than 90% of all uterus rupture patients have had a C-section in the past. A vaginal birth within 2 years of a C-section is considered a somewhat increased risk. The rupture can either be complete or incomplete. Complete rupture means that the whole uterus wall is affected, and it’s systematic and needs an intervention. The incomplete rupture is an asymptomatic glitch in a previous scar in the wall, usually a scar of a C-section. The type of incision on the uterus wall affects the risk of uterus rupture in the next vaginal birth, as well as the amount of previous incisions. First and foremost, it is aimed to repair the uterus, but on rare occasions the uterus rupture leads to an acute hysterectomy. (Kaplan, 2009b, pp. 348-349, Eneroth & Westgren, 2014, pp 543-545).

2.2.4 Placenta Accrete

Placenta accrete means that the placenta has partially or completely, grown into the underlying layer of muscles in the uterus, and worst case even deeper to the underlying organs. There are numbers saying that placenta accrete occurs in one in 2500 births. The

known risk factors are caesarean section and previous placenta praevia, as well as age over 35. With one prior C-section, the risk of placenta accrete is 24%, and with four previous C-sections there is a 67% risk for some level of placenta accrete. And with increasing C-sections, the risk also increases for placenta praevia. Through ultrasound and colour Doppler this condition can be diagnosed prior to partum. Also MRI has a high sensibility for placenta accrete and should be considered in cases where ultrasound cannot distinguish for certain. If undiagnosed prior to delivery, it will become clear during the 3rd stage of labour. If this complication occurs the removal of placenta is necessary, regardless of vaginal birth or through C-section. In cases of severe bleeding a hysterectomy is needed. (Holmgren, 2014, pp 521, 524, Andolf, 2014, p 559-560).

2.2.5 Uterus Atony

It is estimated that uterus atony is the cause of PPH in75-80% of all the cases. In uterus atony the uterus is not contracting properly or not at all. This leaves the blood vessels in the uterus open which leads to the PPH. Uterus inability to contract is normally due to a prolonged labour, extremely short labour, full urine bladder, overly stretched uterus, multiple gestations and parity of five or more. A less common reason is that pieces of the placenta is left. There are several interventions, both conservative and surgical, for stopping the bleeding, partly depending on the reason for the atony. Hysterectomy is the last resort to save the mother. (Holmgren, 2014, pp. 519-520, Kim et al, 2010, pp 131-134, Faxelid & Gustafsson, 2009, p 452, Borgfeldt et al, 2010, pp 110-111).

2.2.6 Caesarean Section

C-section means that there is an incision in the abdomen through which the child is delivered. The word caesarean is most likely to have derived from the Latin verb *caedere* means to cut. During the ancient Rome the law *lex caesarea* forbade a dead pregnant woman to be buried before the unborn feats was removed. In Finland the frequency of C-sections was 15,9% in 2015 (THL, 2016). According to Betrán et al (2016) Europe have an average of 25%, Latin America and Caribbean region has the highest rate with 40,5%, and the world average (data from 150 countries) at 18,6 %. (Högberg, 2010, pp 9-10, Andolf, 2014, p 549).

There are many medical reasons for undergoing a C-section, and the past years there has been an increase in women wishing for a C-section without an existing medical condition. However, a vaginal birth is to recommend for primigravida if no there is no condition. A C-

section can be planned/elective, urgent or emergent. Urgent conditions mean that it is necessary for either the mother or the foetus, or both, but it's not life threatening for neither of them. Emergency C-section means that either the mother's or the child's life is in immediate danger, and the C-section needs to be performed as soon as possible. Andolf (2014, p. 550) explains that planned, or elective, C-section is when it is done before the contractions have started, and the urgent caesareans are done after the contractions have started, and emergency are done as soon as possible. (Amer-Wåhlin, 2010, pp 57-60, Andolf, 2014, p 550-552).

More common short term complications, post-operative, are an increased infection risk (especially in urgent and emergent) and delayed breast feeding compared to vaginal birth. For long term complications, it is more complicated as studies are not always complete, nor do they differentiate between planned, urgent and emergency C-sections. Also the reason why C-section is chosen in the first place will also have an impact on long term complications. As already mentioned earlier, the more C-sections, the higher the risk for complications such as placenta praevia, placenta accrete and uterus rupture in future pregnancies. (Andolf, 2014, p 558-562, Andolf et al, 2010a, pp 107-112, Andolf et al 2010b, pp 115-119).

3 Suffering

Watson (2008) describes that suffering is a part of life, for everyone, it is a universal part of life. It is also up to us, as individuals and collective(s), to find and ascribe the meaning of suffering. Suffering can be physical, emotional and mental. Watson refer to text about the Buddhist views to why suffering is, that life is suffering, but also today's individualism, independence and separation from other human beings. Watson means that it is by going through hardship, suffering, that we can learn new meanings of life. A part of this process is also to realize that we have to go through it, that we cannot take shortcuts or go around it, to go through the whole experience. It is also by giving in, surrendering, accepting its presence, that suffering will vanish/subside. Watson tells how she herself have through meditation gone from physical pain with suffering, through the process of accepting as stopping to resisting, to have only physical pain without suffering. She also adds that it is applicable to any sort of suffering. To this Watson also connects the older philosophies of "yin-yang", the good and the bad, and the coming and going, natural cycles, which is a part of life. (Watson, 2008, pp. 234-238).

Morse (2001) explains that suffering is an emotional response to losses, may it be loss of health, movement or dignity to mention a few. Further suffering has many synonyms that also are very describing of the experience of suffering, such as distress, anguish, torment, discomfort, pain, misery and anxiety. Morse has identified that enduring (emotional suppression) goes hand in hand with emotional suffering. Enduring and emotional suffering are opposite states, but closely linked together. (Morse, 2001, pp.48-49).

Enduring according to Morse (2001) is the state where a person is "pulling herself together" to be able to face the situation. It is a blockage of all emotions while going through something, often in order to be strong for someone else or not to cause additional worry or suffering for the other person. When people are enduring, they are focusing on being able to go on, to be able to function publicly. In this focus, they are locked on the present, as it can be too overwhelming to look forward. Enduring can last for the time the person needs it, but it suppresses a lot of energy and emotions. Often this leads to anger and upset emotions about bagatelles, often short durations, which after the person continues to be enduring. (Morse, 2001, pp. 50-51, 56).

Emotional suffering is described by Morse to be a state where the emotions no longer are controlled, and it is quite a shaky state, as well as quite energy consuming. It is also a sad state, where the person might be crying, sobbing, moaning or weeping. It is possible to see it as one's life (of whatever lost) has lost its meaning or significance, and it by that is also possible to see that the future one had previously envisioned lost forever. Eventually, when working through the emotional suffering, the person is slowly filled with hope, and is able to look forward to a new future. Morse name this process the way from despair to the reformulated self, which is also the only way to really get way from the suffering. (Morse, 2001, pp 51-52).

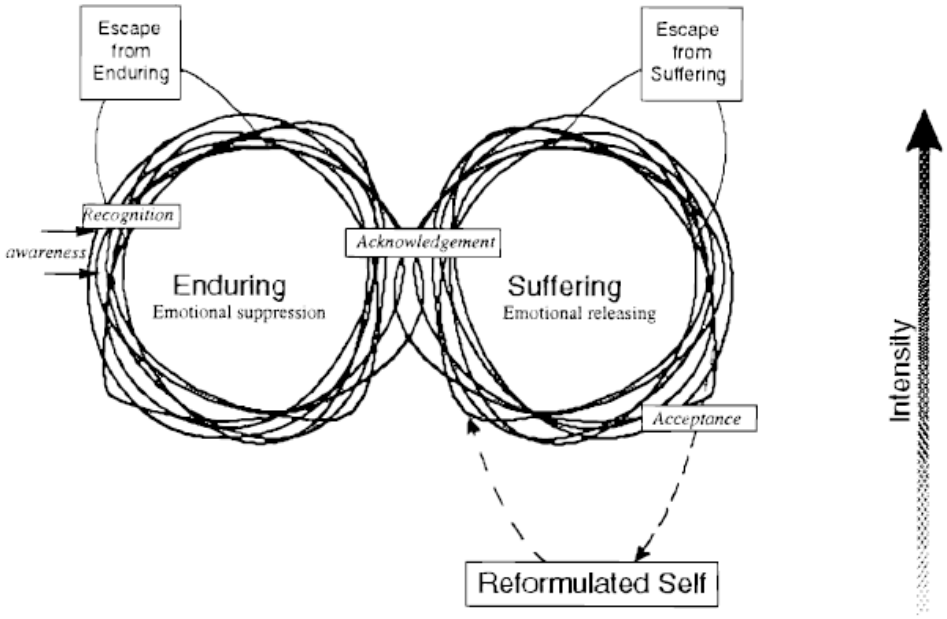

Fig.1 Model of Suffering according to Morse (2001, p.54)

4 Aim

The aim of this thesis is to through a mixed method literature review map out the experience of women in childbearing age, having undergone an emergency hysterectomy following child birth, may it be vaginal or through caesarean section. Furthermore, to describe the experience of the recovery period and the return to everyday life. The study is made in order to develop the nursing care and understanding of these women.

The research questions of this study are:

How does the woman in childbearing age experience an emergency hysterectomy following a child birth?

How does the woman experience the recovery and return to everyday life?

5 Method

This chapter will go through ethical issues, describe a systematic review as well as explaining data collection of articles and qualitative content analysis.

5.1 Ethical Issues

When conducting research in the field of nursing there are a few things to take into consideration. As this is a literature study, and won't conduct interviews (or similar mode of obtaining data), there is no need to pay attention to participant's right to autonomy, right to leave a study at any time without giving a reason, right to remain anonymous, right to freedom of harm and discomfort, right to protection from exploitation and to be fully informed what the study is about before deciding whether to participate or not. (Polit & Beck, 2017, pp 137-143).

However, as an author of a literature review it is of uttermost important that I stay honest and do my best to avoid research misconduct. Research misconducts could be such as plagiarism, fabrication and falsification. As an author of a nursing study I must include all the relevant data, and truthfully retell in my study, meaning that I cannot leave behind facts which wouldn't support my idea, also that needs to be included. Further my study needs to be clear and structured, which lead so that it is reproducible, so that someone else could conduct the same study to reach a similar result, which is also being transparent. And in this it is also important for me to not take any credits for ideas, findings and conclusions which are not mine, and I avoid doing this by always referring correctly to the author's original work (preferably no secondary sources), and by doing this avoiding plagiarism. The ones who have worked hard to reached their results, should be honoured for their work. (Polit & Beck, 2017, 88-90, Forsberg &Wengström 2013, p 69, Rosén, 2012, pp. 431-432).

5.2 Systematic Review

This study is conducted as a systematic review. The review aims to in an organized manner search in the literature for current information regarding the topic of the study. There are inclusion and exclusion criteria, which are motivated, so that the same articles can be found by someone else. Following the search the relevant articles and sources are chosen and the irrelevant discarded. The review aims to make one of two possible conclusions based on the findings in the relevant articles. Either what are the recommendations are concerning

medical care after an emergency hysterectomy, or what is lacking concerning recommendations for such care. The conclusion will be found under chapter 6. (Forsberg & Wengström, 2013, p. 26-31, Rosén, 2012, pp. 431-432, Polit & Beck, 2012, p. 653-654).

The collection of data will mainly be made through data base searching, but there will also be a few manual searches. An important aspect of the data collection is that all relevant articles are included. No article will be excluded due to the fact that it doesn't comply with the idea of the author of the review. The relevant articles that are analysed will be quality checked before inclusion. For a systematic review the recommended method of analysis is meta-analysis. (Forsberg & Wengström, 2013, pp. 26-31, Rosén, 2012, pp. 431-432, Polit & Beck, 2012, pp. 653-654).

Polit and Beck (2017, p 88) describe that the first steps of a literature review is deciding on the topic of the review, the scope and the type of literature review, which will finally determine the length of the review. The aim of literature reviews is to see what, according to research, is working, what is working the best and what is most efficient. What is the evidence in the research sciences for a certain phenomenon. The type of literature is also needed to be determined. When then looking for the determined type of literature it is important that it comes from primary sources, meaning the original writer. Secondary sources (e.g. other literature reviews) are to be avoided for the review in the making, but it can give a good insight of where to look for original sources which may be useful. (Forsberg& Wengström, 2015, p. 26, Polit & Beck, 2017, pp. 88-89).

Polit and Beck (2017, p. 89) emphasise several important parts which together ensure the quality of a literature review. First and foremost the review needs to be well researched, based on current material and complete. Furthermore the review has to be clear and organized as it should be possible for anyone to arrive at the exact same results by following the steps of how the review was conducted. Therefore it is of utter importance that the exclusion and inclusion criteria are clear and with arguments for their respective formulations. To avoid bias is a virtue in literature review writing. (Polit & Beck, 2017, p 89).

A systematic mixed studies review opens up for collection and analysis of qualitative, quantitative and mixed method studies. Though it is still a quite new way of being able to do research, and discussions undergo which is preferred, there are a few different ways of going about it. For this study "integrated design" was used, which means that the "qualitative

and quantitative findings in an area of inquiry are perceived as able to confirm, extend or refute each other". (Polit & Beck, 2017, pp. 665-666).

5.3 Data Collection

According to both Rosén (2012, p. 96, 434-435) and Forsberg and Wengström (2015, p. 26-27), the question of the study needs to be formulated in a structured way and to this step it also belongs to consider which inclusion and exclusion criteria there are. Followed by deciding the choice of literature, and based on choice of literature, the relevant choice of literature research. Typically the choice of literature research are bibliographic databases. The bibliographic databases typically have access to thousands of journals, with their entries and articles, which are easy to find as they can be arranged according to subject, year, language, author etc. (Karlsson, 2012, p. 96, 106-107, Rosén, 2012, pp. 434-435, Forsberg & Wengström, 2015, p. 26-27, Polit & Beck, 2017, p 91).

A search strategy could be created before conducting the search. It is a plan for what key words to use based upon the study question, for example a table. It is important to always update the table after each search, so that important steps are not lost in the process. It also gives a clear overview as well as helps finding relevant articles. Also, to look at the list of cited works of interesting articles, can give further articles which are useful. This technique is called snowball sampling (Karlsson, 2012, p. 108, Forsberg & Wengström, 2015, p. 68-71, Polit & Beck, 2017, p 97-98, 252).

In the beginning I was suspecting there to be a limited amount of articles available within the scope of this study, therefore I included articles from all around the world and not just Finland. I included all articles which are in English, as this study is in English. Exclusion criteria are then any other language than English, as I also see that it is as a way of being transparent and only using English articles for a study which is written in English. The study is including women of childbearing age, as it is a change to lose your fertility unexpectedly, and therefore will studies conducted about women above childbearing age be removed. In connection with this, many women above childbearing age undergo elective hysterectomy due to other reasons (e.g. uterine prolapse or fibroids, cancer, myeloma, endometriosis), and these studies will be excluded. In case of few found articles for emergency hysterectomy, it could be considered to include experiences of women in childbearing age who have undergone elective hysterectomy and by that lost their fertility. Only articles with full text

available will be used, as it is needed in the analyzation of the articles. Lastly, only articles published between 2007 and 2017 will be used.

The data collection was in EBSCO host bibliographic databases, which has access to the databases of Academic Search Elite (multidisciplinary research), Cinahl (nursing), GreenFILE (environment) and Library, Information Science & Technology Abstracts LISTA. The search history can be found in Appendix 1.

It started out being quite hard finding anything with the set limitations (language, year and full text available). In search one I found the article "Interviewing people about potentially sensitive topics", and in the abstract the second sentence went "the first author's experience of interviewing women traumatised by having an emergency hysterectomy following a severe postpartum haemorrhage". This lead to my third search being the first author's name, "Rakime Elmir". In search two I found a literature review on a very similar topic as mine "The impact of hysterectomy on women's psychological health and interventions: a literature review". By looking in the reference list, I found the article "Hysterectomy ad loss of fertility: Implications of women's mental health", which is not on emergency hysterectomy, but tackles loss of fertility and therefore I later decided to include it among my articles. Also, the article "Less feminine and less a Women": The impact of unplanned postpartum hysterectomy on women, was found by checking the reference list used in "Finding meaning in life following emergency postpartum hysterectomy: What doesn't kill us makes us stronger". After search 2, I realized that some articles are available in full text online (e.g. through the journal's website), without being available in full text following the EBSCO search. Therefore, I excluded the limitation of "full text available" after that, and put time on finding the articles, which's abstract sounded like it would answer my research questions.

5.4 Data Analysis

Elo and Kyngäs (2008, p 108) explains that qualitative content analysis is a method of analysing document, by which is aimed to "provide knowledge, new insights, a representation of facts and a practical guide to action". It is quite a free concept with no clear instruction manual which leaves it to the researcher to have a sharp eye and ability to see connections and make related groupings. The goal is to gain a broad information about the phenomena. This big unit of information is then made into smaller bits of units. The smaller units are then labelled with codes, and the codes grouped together into categories according

to how much they resemble each other. About two to six categories that have a general connection are then grouped together into a generic category. There should be several generic categories. The generic categories should be able to form one main category. (Elo & Kyngäs, 2008, pp 108-112, Polit & Beck, 2017, pp 537-538).

Two important decisions to be made are if the manifest or the latent content will be read and analysed, as well as if the method will be inductive or deductive. Manifest content means what "there is on the paper", the exact words, whereas latent content also takes into consideration what is behind the words. Inductive method means that one is open to what is in the text, and the categories are created from what is found. Deductive method means that based on previous research/materials and theories, one creates a category matrix beforehand and looks for answers in the text which fit the matrix categories. Elo and Kyngäs (2008, p 109) describe that it all starts with the researcher reading the material and being immersed in it, having read it maybe several times and knowing its content. (Elo & Kyngäs, 2008, pp 108-112, Polit & Beck, 2017, pp 537-538).

As there are less studies conducted in this area, I made an inductive content analysis. I analysed the latent content. Practically I started with reading all the articles once and also making preliminary marking different sentences and areas in the articles which answered to either of the research questions. Then I printed a 2nd copy of all the results, which I colour coded so I knew which paper was from which article. After that I read them again, double checked that the marked quotes are on the topic, and then also marked the text on the copy. Then I cut out in smaller pieces all relevant quotes. From that I physically sorted the pieces of quotes into groups, according to what I interpreted go together. This process was redone a few times before I felt I had found the right place for the quotes. With that procedure, I made the categories, and from there I created generic categories and main themes. The categories are in the presentation of results marked in bold, and the generic categories and main themes written out to make my created structure clearer.

6 Presentation of Result

In this chapter I answer to the research questions asked in chapter 4, according to what I have learned during the content analysis.

6.1 Experience of Emergency Hysterectomy

Through the data analysis 6 categories were found related to the hospital stay during the hysterectomy. The first three categories are **horror of uncertainty**, **angst at the ICU** and **worry for the baby**, which falls under the generic category *Initial despair*. Under the generic category *Lost orientation*, the sub-categories of **loss of autonomy**, **lack of support** and **coping skills** are found.

6.1.1 Initial despair

In the category of **horror of uncertainty**, it was clear that during the PPH there were 2 groups of women: the ones that were aware of the life-threatening situation and the ones that were unaware of it. The first group of women experienced a lot of fear and uncertainty. Fear about if they would make it, fear about what would happen to their child if they didn't make it, how would their child manage without their biological mother. The women who were unaware of the threat, said they felt calm, which is either due to the shock condition or the health care providers. Someone also mentioned that she didn't realize how severe the situation was before she saw all the blood bags that were for her. (Cruz et al, 2013, Elmir et al, 2012b).

The category of **angst at the ICU** reveals that 50-100%, depending on the place of the study, were treated at the ICU. The ones who were, tells about the fear about waking up in ventilator, not knowing what had happened or what was going on, the beeping machines and alarms going off and an environment which wasn't supportive for recovery. One woman also felt that the health care professionals were not supportive. During the ICU stay there was a lot of physical pain. Despite this, for the women it was not of importance that they were treated at ICU, for them the most important thing was to get information on their baby, how he/she was doing and who was caring for them. (Cruz et al, 2013, Elmir et al, 2012c, Balalau et al, 2016, Sentürk et al, 2017).

No matter if treated at ICU or not, the category **worry for the baby**, describes that right after the hysterectomy, women wanted to know what was going on with their baby, who was caring for them, this information was particularly important for women to gain some piece of mind. Because of their condition, they experienced a prolonged separation from their babies. A few women were too physically worn out to worry about the baby in the beginning, something that triggered feelings of guilt afterwards. It was also mentioned that it was difficult to accept that several family members had already seen and held the baby before the mother had had a chance to start bonding. (Cruz et al, 2013, Elmir et al, 2012c).

6.1.2 Lost orientation

Besides worrying about their child, the category of **loss of autonomy** shows that it was also a shocking, traumatic and horrifying process to get to know that they have been through a hysterectomy and following this cannot have any more children. Some people could not process and react to these news at all, but were just numb. Some reacted strongly emotionally, and some were grateful for being a survivor of the critical condition. A loss of control was felt, and words such as "weak" and "helpless" were used to describe the feelings. (Cruz et al, 2013, Elmir et al, 2012a, Elmir et al, 2012b).

The category of **lack of support**, shows that many women expressed that they didn't receive enough support from the health care provides. Especially the information after the surgery was traumatizing. The paper of content for hysterectomy was rushed, not sufficient information was sent home together with the patient of where she could find support. The lack of communication between the nurses could be stressful as not everyone read the journals and therefore were not aware of the sensitive situation and specific details. Women felt the need of health care providers to compassion, respect and sensitivity in the case, as well as an acknowledgement of grief. The support needs to be offered both before discharge and at the follow up meetings. Something concrete that was asked for was to be well informed about the different steps among the way. (Cruz et al, 2013).

Lastly, the category of **coping skills** shows that a few women experienced that the health care providers expressed themselves in emotional ways, which was encouraging and empowering for the women, as well as being supportive by being tentative, sensitive and compassionate. Coping strategies that were mentioned was accepting that it was the way it was, or focusing on the baby's wellbeing and development. Throughout the whole hospital stay, women explained that they focused on the physical recovery, as well as the recovery,

wellbeing and caring of the baby. (Cruz et al, 2013, Elmir et al, 2012a, Elmir et al, 2012b, Elmir et al, 2012c).

6.2 Recovery

Through the analysis 13 sub-categories were found. They were divided into generic groups and the generic groups created 2 main themes. The first main theme is social identity. *Physical Identity* contains **sexuality**, **body change** and **loss**. *Mother-Child identity* contains **motherhood**, **breastfeeding** and **family role**. *Society* contains **family support** and **social consequences**. Under Mental Process are *Struggles* with **emotional difficulties**, **depression and post-traumatic stress** and **negative reminders** and *Perspective seeking* with **need for information** and **reconciliation**.

6.2.1 Social identity

Physical identity

The women's view and experience of change in their physical body are displayed in the category **change of body**. There was a general feeling of that the body had changed, with new sensations, one being pain. The pain from the hysterectomy scar is seen as one major factor in the women's inability to go back to everyday life with it's activities. Pain together with exhaustion and fatigue. There was also a sensation of feeling older, something which wasn't appreciated by younger mothers, as they had expected to be energetic. (Elmir et al, 2012a, Elmir et al, 2012c).

The category of **loss** shows the enormous work women had to do with processing the hysterectomy and its implications. Many women felt powerless, hopeless, angry, devestated, despaired and upset about not being able to have another child, and a loss of power to not get to determine this on their own. There was also a loss, incompleteness and grief, of having the uterus removed. For several women the uterus was important as a symbol of feminity, womanhood and ability to have children. Further they also felt loss and grief over the birth experience which was not as wished for. Lastly also the grief over destroying their partner's plan and dreams of having more children. (Cruz et al, 2013, Elmir, 2014, Elmir et al, 2012a, Elmir et al, 2012b, Elmir et al, 2012c).

Another topic which was heavily affected is described in the category of **sexuality**, with being able to have an intimate and sexual relationship with the woman's partner, which was seen as an important part. A big amount of the women experienced a loss of libido. The loss of uterus and menstruation together with sexual identity, made them view themselves more negatively when it came to sex and sexuality. Some women waited for a long time before being ready to have sexual intercourse again, which during pain was often experienced. The pain as well as the intercourse was often a bad reminder of what the woman had been through, which could lead to more avoidance. This lead to some women becoming scared and worried about if their partner would remain loyal and faithful. But throughout these challenges, the women explained that overall their partners were very understanding and supportive, and allowing them to take time and put the whole experience into perspective. (Elmir et al, 2012a, Elmir et al, 2012c, Michelet et al, 2015).

Mother-child identity

Roles of the mother are the central concepts of the category of **motherhood**. In order to be a good mother, the women had to manage to breastfeed and create a deep bond with the baby. Some women felt that they got support and good advice from the health care providers, which strengthen their sense of being a good mother. But due to their surgery and following restrictions and limitations, often impacted their ability to perform everything they considered necessary in a good mother, leading to that they viewed themselves as bad mothers. (Elmir et al, 2012c).

The category of breastfeeding describes the women's view on **breastfeeding**. All women had the aim of breastfeeding their baby, but many had struggles with succeeding. Health care providers did not seem to manage to give adequate support to the women. The will and importance to manage to give their baby "the best" [breastmilk] was much based on the belief that that's what a good mother do, as well as that they refused to lose "another battle". Shame and failure were feelings among the women who were unable to in their breastfeeding. Success lead to feelings of confidence and achievement. (Cruz et al, 2013, Elmir et al, 2012c).

The category of **family role** shows also women's roles in their family was affected as well. They often had too high demands on themselves, to be good mothers and good wives and managing to endure their own experiences at the same time. The women reported that the pain following the EPH lead to affect not only themselves, but also the whole family.

Furthermore, they also had feelings of failure and not being good enough because of their infertility, to not be able to provide siblings for their child (for participants with only one child), as well as not managing to fulfil the dream, that they had shared with their partner, of a larger family. (Elmir et al, 2012a, Elmir et al, 2012c).

Society

When the woman's own ability to care for the child was not enough, the category of **family support** tells of family members that would step in and help. Often they were a good help and support, especially in managing to comfort the grief and loss trigged by their experience. However, there was also cases of women keeping the procedure a secret, as their way of coping and being able to handle the experience. Some women had to entrust the care of the baby completely for the family, for up to a year due to the aftermath of hysterectomy. Sometimes seeing the family members getting along better with the baby, and being better at interpreting his or her signals, resulted in the women feeling failure as a mother, guilt, despair and a suspicion of the family member taking the baby away. Family members stepping in to help and to be 'the mother' in some cases hindered the possibility for the deep bonding between the baby and the biological mother. (Elmir et al, 2012a, Elmir et al, 2012c).

The category of **social consequences** shows how the social life of the women were affected after their hysterectomy. Many women found it very hard to face the situations of when friends or family became pregnant, as they felt envy of their ability to create life, but also anger, frustration and sadness. And due to their reactions, they felt guilt. This, together that they felt less able to identify themselves with other women due to them not having menses nor their uterus, made them withdraw from their social circles. Also the feeling of not being understood in their unique experience added to creating a distance between the woman and others. Experiencing hysterectomy at young age, added to the gap between the woman and her friends. Many connections with family and friends were lost this way. Almost half of all the women experienced changes in their socio-professional lives as well. (Elmir et al, 2012a, Elmir et al, 2012b).

6.2.2 Mental Process

Struggles

The category of **emotional difficulties** concerns the mental health, self-images and trains of thought that the women quite normally would experience after a EPH. It often took between 1-6 months before the emotional reality actually hit the women, past the times of follow-ups and support from the health care. Several women felt that their experience was so unique and personal that it made it hard to make others understand what they were going through, and this lead to feelings of being alone and isolated. The hysterectomy scar had profound effect on the women's self-image. One woman described herself as "half a woman". Only one woman seemed to have a positive self-image, as she described herself as being a survivor, and having survived the EPH. (Cruz et al, 2013, Elmir et al, 2012a, Elmir et al, 2012b).

Furthermore, the category of **depression and post-traumatic stress** reveals that some of the women experiencing EPH screen positive for PTSD 6 months after the surgery. Fear of losing or being out of control could lead to anxiety in some situations, and feelings of distress could easily arise from everyday activities such as getting dressed, mainly because the pain caused by the hysterectomy scar. Studies show that it is very common that anxiety, depression and PTSD follow a EPH, and often in comorbidity. Many women visit their psychologist after the surgery, and some will be prescribed antidepressant medication. A lower level of mental health is also associated with wishing for one or more additional children prior to the hysterectomy, and then becoming infertile. A few women felt so mentally poor that they contemplated to end their own lives. Only one study, conducted by Balalau et al (2016), claims that there was no PTSD following EPH, nor complications. (Elmir et al, 2012a, Elmir et al, 2012b, Cruz et al, 2016, Michelet et al, 2015, Sentürk et al 2017, Leppert et al, 2007).

Throughout the different areas of life, reminders in category of **negative reminders** will find their way, causing distress and hindering the women to move forward. Vivid memories and nightmares were common ways the past traumatic event made itself reminded. The nightmares sometimes disturbed the routines of women, preventing them from being productive. Flashbacks while for example watching TV were also quite common. As previously mentioned also, sexual intercourse often brought back painful memories. The physical scar was a constant reminder and made it hard for the women to move on as it was always there. Some women also avoided going to the hospital so as to not be reminded of their past, and a few even avoided the follow ups and an appointment meant for her child. (Cruz et al, 2013, Elmir et al 2012a, Elmir et al, 2012b).

Perspective seeking

The category of **need of information** contains the importance to gain the information and fill the memory gaps from what has happened. It could be by asking the partner, the practitioner during a follow up and reading the own medical records. (Cruz et al, 2013).

The last category, **reconciliation**, the participants share on how the hysterectomy have changed them and their outlook and take on the world. First of all, the amount of time passed since the hysterectomy did not necessarily say how much the women had managed to process the happening, it was an individual journey, even though they themselves perceived that time would heal wounds. However, sooner or later, the women did learn to live with what had happened to them, accepting it, and viewing themselves as survivors. Many shifted their focus, and worked on seeing the positive impacts this had brought to their lives. Expressions like "second chance at life", "eye opener", "lucky to have survived" and "focusing on what really matters" were used to formulate their new perspectives together with feelings of being grateful for life. About half of the women from the study in Australia expressed that it was a positive thing not having their periods anymore, as well as the hysterectomy being a great contraceptive. Some women did not manage to gain such a positive perspective, and their experience of hysterectomy caused them to become more careful and cautious about life, and especially birth. Many women also expressed that the child/children they had were especially precious, considering that they couldn't have any more. One woman had four children and had still expressed grief and anger over not being able to choose her infertility in the beginning. However she later said, "I have gained so much, I have four beautiful children". For a few families, the infertility had opened up the thought of adopting a child, in order to gain siblings for their children and obtain the size of family they had dreamed about before the hysterectomy. (Elmir 2014, Elmir et al, 2012b).

7 Discussion and Critical Results

This chapter contains interpretations and discussions of the method used, the results and a conclusion.

7.1 The Use of the Method

Polit and Beck (2017, p. 557) explains that the reflections at the end of a study are important for all researchers. I will follow majority of Lincoln and Guba's framework for my reflection of trustworthiness, described by Polit and Beck (2017, pp 559-560).

Credibility in a study is shown by initially plan and structure the study in a logical way as well as explanation and reasoning why things where done the way they were done (Polit & Beck, 2017, p. 559). I have tried to stay structured throughout the whole process, to explain what I have been doing and why, especially during data collection and data analysis as my results are built upon these. I have tried to be clear with my formulations to make my actions clear, which also should increase the odds for replication. Maybe it was less clear when I moved from full text available, to try to find the articles elsewhere. How can I be sure that I tried hard enough to find an article? Furthermore, also with moving to a mixed method, I might have overseen quantitative articles in the beginning of my search, but I ought not to have done so, as my search words didn't exclude quantitative articles. And all quantitative articles I have included, I believed to be qualitative when I first found them. When I read them in depth, I realized they were not qualitative. But after changing to mixed method I picked them up again.

High ability to replicate a study is a part of dependability, which is seeing to that is the results connected to a certain time and conditions, or can it be redone at any time, which is also about transferability (Polit & Beck, 2017, p. 559-560). I believe that the conditions will not change that much, but with time, as more studies are conducted in this area, there will be more data available for a study of this sort. My decision of performing a mixed method study lies on that with my when looking for qualitative articles, I only found 5 articles, of which 4 were written by the same first author and were form the same study. At that point I decided to also add quantitative studies, and only looking at the results which could answer to either f my two research questions. Possibly I could have found more quantitative studies, but due to time limitations, I didn't search for more.

I think that this study could be useful for anyone of interest, and for students of nursing, midwifery and public health care, as it is these groups are more likely to get in contact with these women.

7.2 Discussion of Results

The generic category of *initial despair*, with the feelings of **horror of uncertainty**, **angst at ICU** and **worry for the child**, shows clearly that the women are suffering according to Morse's (2001) definition of suffering, also with the same synonyms. Indirectly it is also possible to see that the women are emotionally enduring, as the emotional response often not coming until later. From the background it is possible to see that the women were in a bad condition with the larger blood loss as well as the blood transfusions given.

In *lost orientation*, the **loss of autonomy** follow's Morse's (2001), definition that suffering is an emotional response to losses. The women have lost their right to decide over themselves, as well as lost their uterus. The health care professionals are not able to support the women's suffering. And in the category of **coping skills**, they are enduring, as they are focusing on the baby and getting better physically so they can get discharged from the hospital.

In the generic group of *physical identity*, the key word is again loss. Loss of the uterus, femininity, loss of fertility, loss of the formal body, loss of libido, loss of enjoyment of sex. All this is adding to the suffering according to Morse (2001). In the *mother-child identity*, the subgroup of **motherhood** tells of physical pain following the surgery, with limitations and restrictions which prevents the mother to be a good mother, this can be seen as physical, mental and emotional suffering according to Watson (2008) as well as Morse (2001). **Breastfeeding** shows fear of failing, going through physical pain just to succeed. The family role implicates a loss of belonging.

Society, with the sub-groups **family support** and **social consequences**, shows more of a social suffering, as which Watson (2008) mentions in today's separation from other human beings. Due to the hysterectomy, the women felt less connection to and understanding from the people around, which made them separate more from them. Also feelings of jealousy and sadness when seeing other pregnant women made the women separate themselves more.

In the main theme of Mental process, are the generic groups of *information* and *struggles*. In *struggles*, **negative reminders** and **depression and post-traumatic stress**, it is a clear theme of mental and emotional suffering (Watson, 2008, Morse 2001), where the women are moving between enduring and suffering (Fig 1). The **negative reminders** could be triggers bringing the woman from enduring back to suffering (Morse, 2001).

In the *information* generic group, the sub-group **need for information** shows that the woman is seeking knowledge to fill in the lost blanks. In the **reconciliation**, when the women find positive outcomes from their experiences. This goes together with Watson's (2008) statement of that it is up to the women to find and ascribe the meaning of the suffering that they have gone through. Watson (2008) also mentioned that it is by going through the hardships and struggles that we learn new meanings of life. This also resonates with Morse's (2001) explanation that the only way to get out of the suffering-endurance, is to go through it, to process it, and through the process the person is reformulating herself, with new hopes for the future.

7.3 Conclusion

This study has been a very interesting process. Seeing that the recovery period for the women was so complex that it affects all parts of life, it was difficult to divide it into categories. It was surprising to find so little information about this topic, as it hysterectomies have had an increase since the 1980s. The textbooks I used had very limited information, usually just a brief mention that "last resort is hysterectomy". There was better and more information available in research articles, at least in the quantitative ones.

First of all, I would want there to be more studies conducted in this area, especially qualitative ones. I became really curious that Balalau et al (2016) had found that there were no PTSD in their 12 cases, when all other studies talked about that being common. Therefore it would be very interesting to explore what services were offered to those women to help them go through this experience. Further, it should be better investigated what services are offered to these women currently, and what the health care professionals could do to ease these women's suffering as it is such a huge experience in their lives.

Lastly, I would wish for there to be an update of the course literature aimed for midwifes studying in Vaasa. There should be enough information available from current research in order to at least write a few pages, and hopefully in some years there should be enough information, experience and recommendations in order to write a whole chapter about how to help the rare but profound cases of these women.

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APPENDIX 1. Table over Search History

No. #	Search history	Hits	English, year, (full text-1 &2)	Removal of double	Actual usable
1	emergency hysterectomy	660	15	15	-Interviewing people about potentially sensitive topics
2	Hysterectomy AND support	1,720	68	36	-The impact of hysterectomy on women's psychological health and interventions: a literature review (took from references)
3	Rakime Elmir	7	7	7	-Separation, failure and temporary relinquishment: women's experiences of early mothering in the context of emergency hysterectomy.
4	Experience AND emergency peripartum hysterectomy	34	20	20	-Post-partum stress disorder following emergency peripartum hysterectomy. -Women's experience, Emotional Response and perceptions of care after emergency peripartum hysterectomy: a qualitative survey of women from 6 months to 3 years postpartum.
5	emergency peripartum hysterectomy AND consequence*	1	1	1	-Emergency peripartum hysterectomy, physical and mental consequences: a 6year study.
6	Emergency postpartum hysterectomy	84	67	45	-Emergency hysterectomy for life-threatening postpartum haemorrhage: risk factors and psychological impact. -Finding meaning in life following emergency postpartum hysterectomy: What doesn't kill us makes us stronger. -Between life and death: Women's experience of coming close to death, and surviving a severe postpartum haemorrhage and emergency hysterectomy.
7	Hysterectomy AND *partum	440	241	177	-Postpartum depression and associated factors after emergency peripartum hysterectomy.

Author	Name	Year	Purpose	Method	Result
Balalau, D., Sima, R., Bacalbaşa, N., Pleş, L., Stănescu, A.	Emergency peripartum hysterectomy, physical and mental consequences: a 6-year study.	2016	Estimate occurance of EPH, and quantify risk factors and psycological impact of the patients.	Quantitative. 12 EPH patients during 6 years. Psycological evaluation during period of admission.	Multiparity and scarred uterus being main reasons for EPH. Showing no PTSD nor postoperative complications.
Cruz, C., Coulter, M., O'Ruorke, K., Mbah, A., Salihu, H.	Post-traumatic stress disorder following emergency peripartum hysterectomy.	2015	To explore if there is a connection between EPH and PTSD.	Retrospective quantitative cohort study. Online survey. 74 EPH women participated.	High relevance of PTD, depression and combined depression with PTSD following EPH.
Cruz, C., Coulter, M., O'Rourke, K., Alio, A., Daley, E., Mahan, C.	Women's experiences, emotional response of care after emergency peripartum hysterectomy: A qualitative survey of women from 6 months to 3 years postpartum.	2013	Explore women's experiences in order to be able to make recommendations for health care providers. Qualitative study.	15 women who had undergone EPH within the past 3 years of the study, were interviewed by telephone.	The reasearchers found themes such as fear, pain, death and duying, numbness or delayed emotional reaction, bonding with infant, need for information and communication.

Author	Name	Year	Purpose/aim	Method	Result
Elmir, R.	Finding meaning in life following emergency postpartum hysterectomy: What doesn't kill us makes us stronger.	2014	To describe how women have managed to find back to everyday life, with a positive attitude towards their experience and future.	In depth interviews with 21 Australian women who have undergone EPH.	All women have managed to find meaning with their experience and have a positive outlook on life.
Elmir, R., Cert, G., Schmied, V., Jackson, D., Wilkes, L.	Between life and death: Women's experience of coming close to death, and surviving a severe postpartum haemorrhage and emergency hysterectomy.	2012	To describe women's experience of unplaned EPH following PPH.	In depth interviews with 21 Australian women who have undergone EPH.	Women experienced among other things fear and difficulties in accepting their hysterectomy and involuntary infertility,
Elmir, R., Jackson, D., Schmied, V., Wilkes, L.	"Less feminine and less a woman": the impact of unplanned postpartum hysterectomy on women.	2012	To describe women's experience of unplaned EPH following PPH.	In depth interviews with 21 Australian women who have undergone EPH.	Women experienced a "loss of normality. They didn't recognize their bodies, felt half of a woman, difficulties in their sexual intercourse and isolation from family and friends.

Author	Name	Year	Purpose	Method	Result
Elmir, R, Schmied, V., Wilkers, L., Jackson, D.	.Separation, failure and temporary relinquishment: Women's experiences of early mothering in the context of emergency hysterectomy.	2012	To describe how women experienced their early motherhood time, while recovering from EPH.	In depth interviews with 21 Australian women who have undergone EPH.	The women had a hard time during the initial separation from the baby, with breast feeding and sometimes also with giving care.
Leppert, P., Legro, R., Kjerulff, K.	Hysterectomy and loss of fertility: Implications for women's mental health.	2007	To assess how many women would have wanted one or more child/ren before having a hysterectomy and following factors.	1140 women who had hysterectomy premeno-pausally, interviewed before, 1 year and 2 years after their surgery. Quantitative.	Women who would have wanted to have a child before hysterectomy seemed to be more likely to have poorer mental health in the following years.
Michelet, D., Ricbourg, A., Gosme, C., Rossignol, M., Schurando, P., Barranger, E., Mebazaa, A., Gayat, E.	Emergency hysterectomy for life-threatening postpartum haemorrhage: risk factors and psycological impact.	2015	Identify risk factors, evaluate ability of EPH to stop bleeding and to estimate the psychological impact.	Retrospective analysis. Looked at factors for PPH and interventions made. Also assessed the physiological impact of the EPH had on women. Quantitative.	44 EPH patients, from of which over 60% suffered from post traumatic stress disorder.

Author	Name	Year	Purpose	Method	Result
Sentürk, M., Cakmak, Y., Özalp, A.	Postpartum depression in associated factors after emergency peripartum hysterectomy.	2017	To investigate the connection of post traumatic stress disorder and women having undergone EPH.	Quantitative. Cross-sectional sontrolled study.	14 out of 24 patients who had undergon EPH scored positive for depression.