Experiences of Living with Indwelling Urinary Catheters

A Literature Review

MAIN FIELD: Nursing
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Sammanfattning

**Titel:** Upplevelser av att leva med en kvarliggande urinkateter - En litteraturöversikt.

**Bakgrund:** Urinkatetern designades av Foley i 1937. Det finns olika typer av urinkatetrar. Komplikationer är vanligt förekommande hos patienter som lever med kvarliggande urinkateter. Sjuksköterskor har ansvaret av att ge patienten information om katetern.

**Syfte:** Att beskriva patienters upplevelser av att leva med kvarliggande urinkateter.

**Metod:** En litteraturöversikt av kvalitativ studie genomfördes. Tio artiklar analyserades. Fribergs analysmetod användes för att analysera datan.


**Slutsatser:** Patienter upplevde att de fick otillräcklig information och ansåg att de ville ha mer information från hälso- och sjukvårdspersonal angående kvarliggande urinkatetrar.

Nyckelord: Patienters upplevelser, kvarliggande urinkateter, litteraturöversikt, livsvärldsperspektiv, information.
Summary

**Background:** The urinary catheter was designed by Foley in 1937. There are diverse types of urinary catheters. Complications are common to patients living with indwelling urinary catheters. Nurses have the responsibility to provide information about the catheter to patients.

**Aim:** To describe patients’ experiences of living with an indwelling urinary catheter.

**Method:** A literature review of qualitative study was carried out. 10 articles were analysed. Friberg’s analysis model was used to analyse data.

**Results:** Patients had different perceptions about living with indwelling urinary catheters. Some needed to adjust to having indwelling urinary catheters as part of their life. Others experienced catheter related problems such as pain, leakage and discomfort. Patients expressed need for support from family and healthcare professionals.

**Conclusion:** Patients felt that they had received inadequate information from healthcare professionals and needed information about having an indwelling urinary catheter.

Keywords: Patients’ experiences, indwelling urinary catheter, literature review, life-world perspective, information.
Introduction

Urinary catheterisation is seen in everyday nursing practice (Simpson, 2017). It is a procedure that can improve the patient’s quality of life and at the same time can cause serious complications. Urinary catheters are used both in acute and primary care. (Pomfret, 2007). A study carried out in a nursing home, in western Sweden explains that 7% of the patients had indwelling catheter. In addition to that, the number of men catheterised was five times more than that of women (Jonsson, Loft, Nasic & Hedelin, 2010). Statistics have also shown that 3% of people living in Wales, England and Northern Ireland have long term urinary catheters (Feneley, Hopley and Wells, 2015). Long-term usage of indwelling urinary catheter (IDC) is associated with complications that may affect patient’s life quality. On the other hand, aging population is a key factor to the high use of IDC due to bladder disorders. Thus, IDC is costly for the healthcare system (Newman, 2007; Simpson, 2017). Therefore, patients and health care professionals should be educated on the importance of proper catheter care (Simpson, 2017).

Background

Urinary catheter was designed by Foley in 1937 and since then the design has not significantly changed (Foley, 1937). The original Foley catheter was made of latex. It had a high stretch ratio which made it highly resilient and waterproof. The drawback associated with Foley latex catheter was its cytotoxicity which lead to severe urethral strictures. In comparison to the original Foley catheter, the modern Foley catheter is made of silicone elastomer and hydrophilic coatings. This reduces friction due to its slippery surface. Furthermore, silicone catheters are non-allergic and allow better urine flow (Feneley, Hopley & Wells, 2015).

Types of urinary catheters

There are diverse types of catheters used in the healthcare systems. The catheter selection depends on the indication for catheterisation and patient individual factors such as allergies (Turner & Bruce, 2011). Intermittent urinary catheter (IUC) is used to manage urinary retention and urinary incontinence. It is carried out a few times during the day according to the patient individual needs. According to European Association of Urology Nurses (EAUN, 2012) an IUC is inserted to the bladder through the urethra to drain out urine. It is then discarded, and a new sterile intermittent catheter is used upon each session. It is recommended to apply lubricating gel during insertion to reduce discomfort for the patient (EAUN, 2012).

An indwelling catheter can be used by patients in hospital and in-home care (Patel & Caldamone, 2004). A urethral catheter is applied via the urethra or directly into the bladder through the abdomen (Pomfret, 2007). The advantage of having an IDC is that there is continuous urine flow. Urine flows directly into a urine bag, thus minimising the risk for urine leakage. On the other hand, indwelling catheters can be a breeding ground for bacteria which can lead to an infection (Wilde & Cameron, 2003). Lubricating gel is used directly into the patient’s urethra to minimise stricture formation and trauma in the bladder (Simpson, 2017). Suprapubic catheter is a type of indwelling catheter that is administered via the abdomen directly into the bladder. It is used to relieve urinary retention during urethral injuries, urethral obstruction, bladder neck
masses and prostate cancer (Shlamovitz, 2016). The procedure is carried out by a doctor under local anaesthesia. In comparison to the urethral catheter, the suprapubic catheter takes longer time to insert (EAUN, 2012). The advantage of using suprapubic catheter is that it minimises risk for urethral trauma, contamination with microorganisms, necrosis and urethritis. Furthermore, for patients who are chair bound it is comfortable compared to urethral catheter. Patients with suprapubic catheter can remain sexually active (EAUN, 2012). The disadvantage of using suprapubic catheter is that urine may continue to leak through the urethra (Dingwall, 2008).

After both urethral and suprapubic urinary catheterisation, a urine bag is positioned at the lower part of the leg to allow continuous urine flow and it is secured by a catheter valve. During the night patients attach a larger drainage bag to avoid going up to drain the urine bag. It is recommended to educate patients and their relatives on how to change the IDC and empty the urine bags (Pomfret, 2007; Yates, 2012). This improves the quality of life, promotes independence and self-esteem among patients (Pomfret, 2007). A urinary catheter is replaced after 12 weeks or earlier if the need arises (Yates, 2016a). Regular catheter changes prevent complications such as urinary tract infection and blockage. Furthermore, the urine bag is replaced every fifth to sixth day (Yates, 2016b).

Indications for indwelling urinary catheters
An IDC is prescribed by a doctor and should only be used when there is a clear clinical indication (Hooton et al, 2010) or when other methods for treatment have failed or proved to be insufficient (Pomfret, 2007; EAUN, 2012). Indwelling catheters are used either for short-term, during pre and post operations, for long-term during acute urinary retention, for chronic urinary retention, for urine incontinence and spinal cord injury, (Yates, 2012; Slater, 2011). Acute urine retention is characterised by extreme sudden pain and inability to pass out urine. Studies show that acute urine retention occurs mostly in men (Kuppusamy & Gillat, 2011). Chronic urine retention can be described as the inability to completely empty the bladder (Ghalayini, Al-Ghazo & Pickard, 2005). Urine incontinence is characterised by involuntary urine leakage. It is common among women over 65 years old. Urine incontinence can be acute, temporary or a chronic health condition (Richthoff, 2012). Failure to completely empty the bladder after micturition and terminal care are also other indications for indwelling catheters. IDC is used during palliative care to limit unnecessary movements (Dingwall, 2008).

Complications associated with indwelling urinary catheter
Long-term use of indwelling catheter may lead to complications and should be the last resort to solving urinary related problems (Yates, 2012). Urinary tract infections are the most common complication associated with catheterisation (Warren, 2001). The duration of catheterisation is a major risk factor for developing a urinary tract infection. Long-term use of indwelling catheters can also cause damage to the urinary bladder. Patients may experience pain and discomfort during catheterisation due to the lining of the urethra having no natural lubrication (Richens, 2016). Studies have shown that urinary sediment causes outflow obstruction (blockage) and encrustation of the catheter lumen. This is because of precipitation of minerals like magnesium, phosphorus and calcium in urine. A biofilm is formed leading to blockage of the catheter. To decrease the chance of blockage, the catheter should be changed regularly (Wilde, McMahon, Crean & Brasch, 2017). Furthermore, other researchers argue that blockage is prevalent among indwelling catheter users. When problem in the form of outflow
obstruction occur, the urinary catheter is rinsed to restore its function. When impossible to restore its function, it is recommended to change to a new catheter (Jonsson, Loft, Nasic & Hedelin, 2010). Other problems associated with acute catheter changes are for examples catheter leakage and bladder spasms (Jonsson, Loft, Nasic & Hedelin, 2011).

Nurses’ responsibilities regarding indwelling urinary catheters
Urinary catheterisation should be carried out by a competent practitioner (Simpson, 2017). Nurses should have knowledge about urinary catheter types, indications and complications as the need for this intervention will increase with the rise in chronic health conditions and the aging population (Turner & Dickens, 2011). Before carrying out the procedure, the nurse should ensure that the patient is informed about the indication for catheterisation (SOSFS 2008:1) and on how the procedure is going to be carried out. Nurses are required to document the following on patient’s journal after catheterisation: the size, type, indication for catheterisation, date and time of insertion. Furthermore, nurses should document the amount of saline water inserted into the balloon and when the catheter is eventually going to be changed (Turner & Dickens, 2011).

Nurses have a responsibility to educate patients on personal hygiene and sufficient fluid intake (SOSFS 2008:1). This ensures steady flow of urine and minimises the risk for infection (Leaver, 2017). Before leaving the hospital, nurses should ensure that the patient is educated on how to care for the urinary catheter. It is important to follow up patients after the catheterisation procedures to minimise risk for complications (SOSFS 2008:1). According to Pomfret (2007), family members and catheter users should be educated on safe IDC management. This provides a method of self-management, which can achieve an improved quality of life, dignity and independence.

Philosophical framework
Dahlberg & Segesten (2010) explain that nurses should internalize and incorporate life-world perspective to satisfy patient needs. The theory of life-world was developed to study people’s experiences in everyday lives (Husserl, 1970). This concept emerged from phenomenology founded by Edmund Husserl in 1954 and it can be applied both in health and social sciences. Lifeworld perspective describes an individual’s “world of varieties” and “everyday world” (Husserl, 1970). Furthermore, the perspective strives to describe how an individual’s daily activities are influenced by the surrounding. Husserl argues that human experiences are complex and to understand the perspective of people requires the description of human or feelings about the life-world in all variety (Dahlberg, Segesten, Nyström, Suserud & Fagerberg, 2003). This philosophical perspective stresses that healthcare professionals should see, understand, describe and analyse the life-world based on human experience and that medical knowledge should be taken from both the patients and health science perspectives. To satisfy individuals existence, it is important to view individuals as living wholes. In addition to that, this perspective teaches caregivers on the materialistic impact urinary catheter has on the non-materialistic experience (Dahlberg, Dahlberg & Nyström, 2008). Life-world perspective helps nurses to understand the life of the patient thereby satisfying the needs of the patient. Through this perspective, the healthcare giver can promote meaningfulness and create a healthy balance in the patient’s everyday life (Dahlberg & Segesten, 2010).

Authors of this thesis were involved in urethral catheterisation during a practical session at the hospital. Due to the little knowledge about indications and complications,
the authors were interested on patient’s experiences of living with indwelling catheters and ways of improving IDC care.

**Aim**

The aim of this study was to describe patients’ experiences of living with an indwelling urinary catheter.

**Material and method**

**Design**

A literature review was performed and based on ten qualitative articles. Qualitative method was used to describe the lived experiences of individuals with indwelling urinary catheters (Henricson & Billhult, 2012). Qualitative research focuses on the understanding of people's experiences and interpretations of a particular state (Kristensson, 2014). Literature review is a compilation of research articles used to study the same phenomenon (Kristensson, 2014; Friberg, 2012). A review of the scientific literature was used to answer the aim of this study (Garrard, 2017) and to create an understanding and insight for analysis or interpretation (Henricson & Billhult, 2012). An inductive approach was also used. This meant that collected data was analysed unconditionally, without a prior theory informing the analysis (Priebe & Landström, 2012).

**Selection and data collection**

The literature review started in December 2017. Data was collected using electronic databases such as CINAHL and Medline (Appendix I). Nine articles were identified from these databases and one article was identified through manual search, that provides an insight of patients' experiences of living with indwelling catheters (Appendix II). The dates of publication of these articles were limited to studies conducted between 2007 – 2018 to have a wide range of choice of the subject (Friberg, 2012). The search was based on keywords such as patient*, experiences of living with indwelling catheter, patients* perspective, view, perception, attitude, catheter, urinary catheter, indwelling catheter. Asterix (*) is used after keywords for truncation, which means to enable the databases to search for endings of the word (Willman, Bahtsevani, Nilsson & Sandström, 2016). The Boolean search operators such as AND, OR and NOT were used in both database and between the keywords to specify the searches. AND means that both the word in front and behind is searched. OR broadens a keyword by including synonyms for the keyword behind. NOT is used in front of keywords that are excluded from the search results (Östlundh, 2017).

CINAHL database contains articles and journals in biomedicine, health sciences and nursing fields and the searched articles were reduced to peer-reviewed. Medline provides information on medicine, nursing, and the healthcare system and the articles have full text (William, Bahtsevani, Nilsson & Sandström, 2016). In Medline both free text and the respective MeSH term were used to yield results. The articles used for the results would be published between 2007 and April 2018 and the time frame covered in the searches was December 2017 – April 2018. In all the databases the search was limited to English language publications. A manual search was also used by studying reference list of articles after searching the databases. It was used to find more articles...
based on our aim that were not found through the CINAHL and MEDLINE databases (Willman, Bahtsevani, Nilsson & Sandström, 2016; Henricson & Billhult, 2012). The selection of interval for the literature study was based on people’s lived experience of living with indwelling catheters and only studies on adults of age 18 years and above was included in the literature study. Irrelevant materials which are not in accordance to the aim was excluded. Articles included in the study were based on research around both urethral catheters and suprapubic urinary catheters. The articles were peer-reviewed (Polit & Becks, 2012) and had an ethical approval (Forsberg & Wengström, 2013). The quality of the articles was controlled according to a protocol developed by the School of Health and Welfare, Department of Nursing, Jönköping (Appendix III). Titles and the abstracts were identified from the searched articles and were read through to identify information that were relevant to the aim of the study (Kristensson, 2014). Afterwards, the entire articles were read and those that corresponded to the aim were evaluated using the protocol. The articles were evaluated to be high, average and of low quality (Rosén, 2012). According to the quality control protocol, articles that met the first four criteria (4/4 “yes) in part 1, was to be included in the result (Appendix II & III). While in part 2 of the protocol, the following criteria was chosen by the authors: 1-3 “yes” implied the article has low quality. 4-6 “yes” implied average quality and 7-8 “yes” implied the article is of high quality. Ten articles were approved using the protocol.

Data analysis

Data was analysed using Friberg, (2012), a data analysis method which consists of five steps. In the first step, the articles were selected and read several times by the authors separately to have an idea of what the articles were about. Step two involved analysing the results in each of the articles to find key results. Key findings from the different articles that corresponded to the aim of the study were marked with distinct colours. Furthermore, the key findings were divided into different headings. In the third step the authors summarized the results to get an overview of the findings. The various themes and sub themes were written down. Step four involved both the authors comparing the results to identify similarities and differences. The findings were written down on pieces of paper to easily get an overview of the results. Findings were compiled to answer the aim of the study. In the fifth step, different themes were described based on the results obtained from the articles. (Friberg, 2012).

Ethical considerations

Articles that are ethically approved by the ethics committee should be used to higher the scientific value of the thesis (Forsberg & Wengström, 2013). Articles used in this literature study are ethically reviewed and accepted by an ethical committee. However, Kjellström (2012) argues that challenges may arise for instance hurting and taking advantage of the participants. The Belmont report explains that researchers should use three ethical principles: respect for people, justice and beneficence (Kjellström, 2012). Research carried out in bachelor’s degree level require no ethical testing. The following are the three conditions that need to be met for an article to be ethical approved: studies should be carried out ethically, the article should discuss critical issues and be of good scientific quality (Sandman & Kjellström, 2013).
Results

Findings from the literature review reveals different experiences that patients perceive while living with an indwelling urinary catheter. The results are based on ten scientific articles and are presented in the table below using two themes and seven subthemes.

Table 1: Presentation of major themes and subthemes

<table>
<thead>
<tr>
<th>Themes</th>
<th>Subthemes</th>
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<tr>
<td>Hindrances and facilitators in daily life</td>
<td>-Body image, intimacy and sex</td>
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<td></td>
<td>-Discomfort and embarrassment</td>
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<td>-Reduced daily activities</td>
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<td>-Adjustments in life</td>
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<td>-Catheter as a possibility</td>
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<td>Need for support and information</td>
<td>-Social support</td>
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<td>-Support and information from health care professionals</td>
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Hindrances and facilitators in daily life

Patients living with indwelling urinary catheters faced various consequences. Some patients experienced negative effect on body image, intimacy and sex. Others perceived a catheter as a hindrance to daily life. Patients explained differences in their individual experiences of adjusting to IDCs. Some experienced positive life changes having IDC and saw new possibilities.

Body image, intimacy and sex

Living with an indwelling urinary catheter affected patient’s body image, intimacy (Chapple, Prinjha & Feneley, 2015; Fowler, Godfrey, Fader, Timoney & Long, 2014; Sweeney, Harrington & Button, 2007) and sexuality (Adejumo & Ilesanmi, 2008; Chapple et al., 2015; Fowler et al., 2014; Prinjha & Chapple, 2013; Sweeney et al., 2007).

Some patients felt embarrassed and reported a negative effect on self-image due to living with IDCs (Prinjha & Chapple, 2013; Sweeney et al., 2007). Patients reported that they worked hard to maintain self-esteem after having IDCs (Adejumo & Ilesanmi, 2008; Fowler et al., 2014). Additionally, patients expressed constant concern on whether the drainage equipment was visible to the public despite having a suprapubic catheter for a long time (Sweeney et al., 2007). Young female patients had ambivalent negative feelings of having an indwelling urinary catheter and stated that it was a constant reminder of incontinence (Fowler et al., 2014). Patients expressed feeling of not being a whole person because of having an IDC (Godfrey, 2007). Men felt a sense of loss of masculinity due to living with an indwelling urinary catheter (Adejumo & Ilesanmi, 2008). Female patients living with a suprapubic catheter reported a negative influence on self-image and sexual relationship (Chapple et al., 2015).
Some patients reported that sex was still important despite having an IDC (Prinjha & Chapple, 2013; Chapple et al., 2015). Others experienced a catheter as a constructed organ in the body which affected their sexual relationship (Chapple et al., 2015). Patients with a urethral catheter experienced soreness (Chapple et al., 2015; Prinjha, Chapple, Feneley & Magnall, 2016) and pain during sexual intercourse (Prinjha et al., 2016). Furthermore, female patients reported having blood in urine and contracted infections after having sexual intercourse (Prinjha et al., 2016). Some patients expressed a degree of burden because of inability to have to sex with their spouses (Adejumo & Ilesanmi, 2008). Patients expressed that having a urethral catheter restricted them from being sexually active. However, a supportive partner was needed to resume to sexual activity (Sweeney et al., 2007). Patients explained that suprapubic catheter was acceptable because it was not positioned on the penis or vagina therefore allowing patients to have sex. Patients who previously had an indwelling urethral catheter and then changed to a suprapubic indwelling catheter experienced sexual intercourse being much easier (Chapple et al., 2015; Kralik, Seymour, Eastwood & Koch, 2007).

Discomfort and embarrassment
Patients who had recently been catheterized reported that indwelling urinary catheters were uncomfortable (Chapple et al., 2015; Fowler et al., 2014; Kralik et al., 2007; Safdar, Codispoti, Purvis & Knobloch, 2016) and painful (Adejumo & Ilesanmi, 2008; Chapple, Prinjha & Mangnall, 2013; Fowler et al., 2014; Safdar et al., 2016). Furthermore, female patients stated that urethral catheters were uncomfortable because of sores experienced by female patients after sitting on the catheter for too long (Chapple et al., 2015; Fowler et al., 2014). Patients with suprapubic catheters experienced soreness and leakage around the suprapubic site which caused distress (Fowler et al., 2014).

Patients with indwelling urethral catheters experienced blockage, leakage (Prinjha et al., 2016; Fowler et al., 2014; Prinjha & Chapple, 2013), anxiety, bladder spasm (Prinjha & Chapple, 2013; Prinjha et al., 2016) and catheter associated urinary tract infections (CAUTIs) (Prinjha et al., 2016; Fowler et al., 2014; Prinjha & Chapple, 2013). Some patients perceived catheter blockage as painful and dreadful (Chapple et al., 2013). Patients that experienced leakage felt that nurses failed to take proper care during changing urethral catheters to protect clothes and bed covers from getting wet (Chapple et al., 2013). Patients also experienced irritation and skin damage caused by catheter straps (Fowler et al., 2014).

Reduced daily activities
Patients living with indwelling urinary catheters expressed various obstacles encountered daily. Some patients perceived IDCs as a hindrance due to catheter blockage and felt restricted from carrying out daily activities (Godfrey, 2007). Others perceived indwelling urinary catheters as a social hindrance and felt limited to engaging in social activities (Kralik et al., 2007; Safdar et al., 2016; Fowler et al., 2014; Adejumo & Ilesanmi, 2008) such as swimming, dancing or travelling for long trips (Kralik et al., 2007). Patients experienced sleep disturbances and interruptions during nighttime due to problems with catheter drainage. Furthermore, some patients felt that the position of the catheter affected their sleep and experienced pain during sleep (Fowler et al., 2014; Kralik et al., 2007). Sleep interruptions during night time resulted to patients unable to carry out daily activities.
**Adjustments in life**

Adjusting to living with a catheter was influenced by conditions such as reasons for catheterisation, patients’ involvement during shared decision on catheters, duration of catheter usage by patients, and awareness of physical problems associated with a catheter (Chapple et al., 2015; Fowler et al., 2014; Godfrey, 2007). Patients who had struggled with making adjustment after getting an indwelling urinary catheter socially isolated themselves (Fowler et al., 2014). Patients employed various strategies after getting IDCs despite being previously reluctant to adjusting living with indwelling urinary catheters (Sweeney et al., 2007). Some patients wore clothes that conceal the indwelling catheters (Godfrey, 2007; Adejumo & Ilesanmi, 2008). Furthermore, some older patients explain that an IDC is something they have accepted and learned to live with after long duration of catheter usage (Fowler et al., 2014; Godfrey, 2007).

**Catheter as a possibility**

Patients expressed acceptance to living with IDCs (Fowler et al., 2014) and reported that a catheter helped them live a normal life (Fowler et al., 2014; Kralik et al., 2007). Patients with progressive diseases such as Multiple Sclerosis experienced freedom and convenience after having indwelling urinary catheters (Kralik et al., 2007; Sweeney et al., 2007). Some patients experienced comfort and experienced that suprapubic catheters were hygienic. Furthermore, patients with suprapubic catheters felt a sense of control (Chapple et al., 2015). Others explained life as manageable after having a catheter inserted (Adejumo & Ilesanmi, 2008). Patients with IDCs experienced convenience because bathroom visitations were not needed (Safdar et al., 2016).

**Need for support and information**

Support from family members, friends and healthcare professionals affected patients living with indwelling urinary catheters in numerous ways.

**Social support**

Patients reported that support received from family members and close friends (Adejumo & Ilesanmi, 2008; Fowler et al., 2014) and neighbours (Adejumo & Ilesanmi, 2008) aided in coping with living with an IDC. Close friends were supportive and helped relieve potential embarrassment (Fowler et al., 2014). Some patients expressed gratitude for the love, concern and care received from family members (Adejumo & Ilesanmi, 2008). However, some patients expressed the desire not to disclose that they had an IDC to distant relatives and friends (Adejumo & Ilesanmi, 2008). Support from family, friends and healthcare professionals affected patient’s adjustment to living with an indwelling urinary catheter (Sweeney et al., 2007). Others revealed exclusively to immediate family members about having an IDC (Fowler et al., 2014). Patients who previously had supportive spouses were negatively affected after the spouse’s death. (Fowler et al., 2014).

**Support and information from healthcare professionals**

Nurses and healthcare professionals greatly influenced the lives of patients living with an indwelling urinary catheter. Some patients expressed the need for continuity of care during every catheter change. Patients felt that having support from the same nurses provided comfort and this made catheter changes less problematic (Prinjha & Chapple, 2013). Furthermore, some patients felt that some nurses were better than others because of less pain experienced during catheter change (Chapple et al., 2013; Prinjha & Chapple, 2013). On the other hand, some catheter users felt insecure and that nurses failed to listen to them, when patients were discussing catheter changes (Chapple et
al., 2013). Others experienced strained relationship with the nurses due to rushed consultations (Godfrey, 2008).

Patients expressed the need for information from healthcare professionals before and after urinary catheterisation (Chapple et al., 2013; Prinjha & Chapple, 2013). Patients needed information about urinary catheters, insertion, different catheter materials available including information about managing life with a catheter (Chapple et al., 2013; Prinjha & Chapple, 2013) and the positioning of the catheter (Chapple et al., 2013; Prinjha et al., 2016). Some patients expressed the need for information about self-care and hygiene to prevent themselves from blockages, urinary tract infections and leakages (Prinjha & Chapple, 2013). Furthermore, catheter users also expressed the need for adequate information about sex from healthcare professionals (Prinjha & Chapple, 2013).

Some patients felt they received inadequate information and sexual counselling from healthcare professionals. Catheter users who experienced having received inadequate information from nurses or other healthcare professionals, experimented the catheter care through trial and error. Patients that turned to the internet and other sources for information experienced CAUTIs (Prinjha et al., 2016). Patients felt that sexual problems associated with catheterisation should be discussed and not neglected by healthcare professionals (Chapple et al., 2015; Prinjha & Chapple, 2013).

Discussion

Method discussion
Lincoln and Guba's framework for ensuring trustworthiness were followed in this study (Lincoln & Guba, 1985). The different dimensions of trustworthiness include credibility, transferability, dependability and confirmability (Polit & Beck, 2012). In this literature review, credibility was enhanced through reading the articles repeatedly, identifying the meanings units, major categories, themes and subthemes from the articles. The authors read through the articles separately and together summarized the content of the data into subthemes and themes (Henricson, 2012). Credibility was also increased through peer debriefing (Lincoln & Guba, 1985). Firstly, key findings were read and collected from the data individually. Afterwards, findings were discussed and analysed together by the authors. The results were later submitted to the supervisor and other group members to comment on the findings, thereby increasing the credibility of this literature review (Petersson & Lindskov, 2012). The literature review was continuously read by the supervisor and group members. Amendments were made after receiving feedback from the supervisor and group members thereby increasing the credibility of this literature review (Wallengren & Henricson, 2012).

The authors had a pre-understanding from clinical experiences in caring for patients with indwelling urinary catheters. This pre-understanding was taken into consideration during data analysis and this may enhance the credibility of the literature review (Wallengren & Henricson, 2012). Dependability was improved through discussing and analysing the various procedures in detail to enable other authors to carry out the same study and achieve comparable results (Bordens & Abott, 2011). Credibility was enhanced through describing the literature design, selection, data collection and data analysis in detail (Wallengren & Henricson, 2012). When the authors commenced data search, the date of publication of articles was limited to ten years to find recent studies. This could enhance credibility (Henricson, 2012). CINAHL and
MEDLINE databases were used. Searching of articles in different databases improve the trustworthiness of this literature review as it increases the possibility of finding relevant articles that respond to the aim of the study (Henricson, 2012). Manual search was used to maximise the chances of getting relevant and adequate articles (Willman, Bahtsevani, Nilsson & Sandström, 2016; Henricson & Billhult, 2012). Through using different databases, various results are achieved thereby increasing the validity of this study (Henricson, 2012).

Articles used in this study were quality reviewed using a protocol for qualitative method. The authors agreed that the articles needed to achieve at least six of the eight criteria (6/8) in the second part of the protocol to be approved and included in this literature review. The ten articles that were identified in this literature review were ethically approved and of high quality, thereby enhancing trustworthiness (Henricson, 2012). Articles were analysed individually, and a joint discussion was carried out afterwards (Henricson, 2012). Different possible subthemes and themes were suggested. This increases credibility of this literature review because of the different perspectives and understanding each author poses (Henricson, 2012).

Some difficulties were experienced while carrying out the literature review due to inadequate experience. This may affect data collection and the quality of the literature review (Henricson, 2012). A literature review was an appropriate method used because it creates a field of knowledge (Friberg, 2012). A literature review was used because it provided in depth perceptions and experiences (Henricson, 2012). An inductive approach was used in this literature, implying that the results of the articles were interpreted based on the experiences of patients without any preconceptions (Henricson & Billhult, 2017).

All articles included in this study are written in English language. Since the authors are eloquent in English language, reading and interpreting articles was not difficult. Transferability refers to the degree in which the findings obtain from a literature review can be transferred or applicable to other groups or situations (Bordens & Abott, 2011). The articles in this literature review are from the following countries: United Kingdom, USA, Australia. The results from this study can be applicable in Sweden and transferable to the Swedish healthcare system. This is because these countries represent the western world and have similar healthcare perspective (Bordens & Abott, 2011). Furthermore, one of the articles used in the study is from Nigeria. Therefore, the article tends to represent the experiences of patients living with indwelling urinary catheters in parts of the African continent. This is important and relevant due to the diverse cultural and social views between the two continents.

Result discussion
The results show that patients experienced that having indwelling urinary catheters affected their body image, feelings of masculinity or femininity and sexual relationship. Some felt that a catheter was a burden and caused pain, discomfort and other catheter related symptoms during sex. Others felt a sense of control after having suprapubic catheters. Additionally, patients preferred suprapubic catheters to urethral catheters because they were comfortable and could allow them to remain sexually active. However, some patients explained having different perceptions about their body after getting IDCs. Patients expressed the desire of no longer engaging in sexual intercourse. These results are supported by Chapple, Prinjha & Salisbury (2014) study about the users of indwelling urinary catheters view on sex and sexuality. Chapple, Prinjha & Salisbury (2014) explained how catheter users willingly refrain from sexual intercourse due to low self-esteem. Other patients experienced discomfort after having sex and
thus avoiding having sex. This could be because patients had received inadequate information about sex while living with IDCs and the reluctance of health care professionals giving counselling on sex. Patients required information from the nurses about sex. Saunamäki, Andersson & Engström (2010) study shows that some nurses are not comfortable talking about sex with patients. However, the nurses agreed that it was their responsibility to talk about the subject with patients. The lack of time during consultation also contributed to healthcare professionals not talking about sex with patients.

The results showed that patients experienced discomfort due to pain during catheter usage. This is in line with Wilson (2008) study shows that a catheter pain can be experienced by patients during traction on the catheter drainage bag, urethral discomfort, bladder or urethral spasm, catheter blockage, pain during removal of the catheter and pain due to misunderstanding and non-acceptance of the catheter. Furthermore, Wilson (2008) meant that the cause of pain needed an immediate investigation by the health care professionals to avoid damages and to help patients to have a better life while living with indwelling urinary catheter.

The experiences of patients living with IDCs evolve around catheter-related problems such as blockages, leakages and CAUTIs and these had a considerable effect on patients’ lives. This led to patients having a feeling of distress, discomfort, frustration and embarrassment. This in line with Wilde (2002) study about catheter-related problems. Thus, implying that some patients having catheter-related problems are aware of these problems. However, health care professionals need to listen and consider patient’s point of view about the catheter when providing care.

The results showed that patients had various experiences and perceptions of living with IDC. Patients who recently got a catheter explained that living with indwelling urinary catheter affected their life-world. This could be understood using the life-world perspective that means that every individual’s experience is unique in relation to their life-world (Husserl, 1970). Life-world perspective implies that health care professionals should give care in accordance to the patient’s individual needs and also taking into consideration patient’s understanding of their bodies and meaning of their life (Dahlberg, Segesten, Nyström, Suserud & Fagerberg, 2003). Patients experienced that the catheter was a hindrance to their social life. The findings support Wilde et al. (2013) studies which explain that an indwelling urinary catheter affected catheter users’ daily life. The differences in everyday life were connected to the cause for urinary catheterisation. Living with IDCs affected patients sleep, liquid intake, social life, travelling and choice of clothes. Chapple, Prinjha, Feneley & Ziebland, (2016) explain that living with an IDC affects patient’s social relations. Thus, leading to patients hiding the catheter from the public.

Patients faced challenges when adjusting and accepting to living with indwelling urinary catheters. Therefore, patients employed different strategies to adapt and manage the catheter. This is supported by Kralik, Koch, Prince & Howard (2004) study on self-management or acting to create an order in one’s life. This study explains the strategies that patients undertake to create order and have control in their lives (Kralik et al., 2004). Thus, helping patients understand that it can take time to adjust to living with indwelling urinary catheter. Support and information from healthcare professionals and others is also required by patients to enable catheter management.
Conclusion

This study describes patient's lived experiences of using indwelling urinary catheters which gives nurses a better understanding of patient's life-world. Patients experienced that their overall quality of life was improved after urinary catheterisation.

Furthermore, this study is expected to positively impact the healthcare sector because it emphasizes on the importance of communication between nurses and catheter users. Nurses are expected to inform and educate patients about urinary catheters. This increases the level of trust of patients towards the health care system.

Living with IDCs has evidently affected patients’ daily life. Patients experienced discomfort after having IDCs. Furthermore, information would enable patients to learn about the catheter. This can be reduced by providing adequate information to make patients feel secure. Adjusting to IDCs was also influenced by support from family, friends and health care professionals. Conditions such as reasons for catheterisation, duration of catheter usage by patients and problems associated with catheters also influenced patients’ adjustment to living with IDCs. Strategies were employed by patients to adjust to living with IDCs. Healthcare professionals should provide verbal, written and visual information to patients. This enables patients to learn about catheters and to accept living with indwelling urinary catheters. Furthermore, some patients had negative feelings about body image and intimacy. The results suggested that the discussion about sex and intimacy should be done prior to having a catheter inserted. Patients valued information from health care professionals. More qualitative research should be carried out on information about sex and intimacy, to ensure patients receive adequate information from healthcare professionals.
References

* Articles included in the results


# Appendix

## Appendix I: Databases and manual search

<table>
<thead>
<tr>
<th>Databases</th>
<th>Searched words</th>
<th>Hints and identified title</th>
<th>Identified abstracts and read articles</th>
<th>Quality Controlled of articles</th>
<th>To results</th>
</tr>
</thead>
<tbody>
<tr>
<td>CINAHL</td>
<td>(Patient*) AND (experience OR perspective OR view OR perception OR attitude) AND (indwelling urinary catheter)</td>
<td>120</td>
<td>7</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>(Patient*) AND (experience OR perspective OR view OR perception OR attitude) AND (“catheter urinary”)</td>
<td>53</td>
<td>6</td>
<td>2</td>
<td>2</td>
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<tr>
<td>MEDLINE</td>
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<td>2</td>
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<td>MEDLINE</td>
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<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Manual search</td>
<td>CINAHL (Manual search)</td>
<td>993</td>
<td>2</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>
## Appendix II: Articles used in this literature review

<table>
<thead>
<tr>
<th>Authors, Year, Country and Databases</th>
<th>Title and Aim</th>
<th>Method, analysis and number of participants</th>
<th>Results</th>
<th>Quality control</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adejumo &amp; Ilesanmi 2008, Nigeria, Manual search.</td>
<td>Acute urinary retention and indwelling Urethral Catheters: A qualitative study of men with obstructive prostate enlargement. The aim of this study is to find out the testimonies/experiences of men on indwelling urethral catheter in University College Hospital, Ibadan, Nigeria.</td>
<td>Qualitative method. Descriptive with analysis. System theory. Interviews using interview guide, tape recorded and transcribed. 20 patients with a diagnosis of obstructive prostate enlargement using indwelling urethral catheters participated in the study.</td>
<td>Participants expressed feelings of depression, embarrassment and isolation given a change in body image. Participants expressed both positive and negative satisfactions on support from the loved ones to maintain good psychological wellbeing. Loss of control due to low self-esteem was also experienced by the participants</td>
<td>Ethically approved.</td>
</tr>
<tr>
<td>Chapple, Prinjha &amp; Mangnall 2013, England, Medline</td>
<td><strong>Changing a urethral or suprapubic catheter: the patient’s perspective.</strong>  The aim is to study people’s experiences of living with a long-term indwelling urinary catheter, with focus on what people say about having their catheter changed.</td>
<td><strong>Qualitative interpretive approach.</strong> Narrative interview. Interviews guide. Thematic analysis  36 participants living with either a urethral or suprapubic catheter participated in the study.</td>
<td>Patients experienced lack of communication or information from the nurses about how often the catheter should be changed and other crucial factors such as having a good hygiene during catheter changed; importance of continuity of care from the same nurses which makes the patients feel comfortable. Furthermore, time constraints were expressed by patients during urethral catheter changes as nurses are in a rush due to lack of resources. This led to patients experiencing anxiety, pain and bladder spasms.  The importance of nurses listening to the patients and their views was expressed by patients. This is due to that fact that patient is expert with their body and life and know which techniques or products work best for them. Some patients experience leakage during urethral catheter change.</td>
<td>High Part 1: 4/4  Part 2: 7/8  Ethically approved.</td>
</tr>
<tr>
<td>Authors</td>
<td>Title</td>
<td>Study Aim</td>
<td>Methodology</td>
<td>Sample Size</td>
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<tr>
<td>Chapple, Prinjha, &amp; Feneley 2015, United Kingdom, CINAHL</td>
<td>Comparing transurethral and suprapubic catheterization for long-term bladder drainage.</td>
<td>The aim of this study is to explore both men and women perceptions and experiences of having had both suprapubic catheter and urethral catheter.</td>
<td>Qualitative method. Narrative interviews with interview guide which were audi-taped and transcribed. Thematic analysis.</td>
<td>Thirty-six patients participated in the study.</td>
</tr>
<tr>
<td>Fowler, Godfrey, Fader, Timoney &amp; Long 2014, England, CINAHL</td>
<td>Living with a Long-term, Indwelling Urinary Catheter: Catheter Users’ Experience.</td>
<td>The aim of this study was to explore the experiences of long-term catheter users within a heterogeneous population.</td>
<td>Qualitative method. Interviews were electronically recorded and transcribed verbatim.</td>
<td>27 participants took part in the study.</td>
</tr>
<tr>
<td>Author</td>
<td>Title</td>
<td>Method</td>
<td>Participants</td>
<td>Findings</td>
</tr>
<tr>
<td>------------------------</td>
<td>----------------------------------------------------------------------</td>
<td>------------------------------------------------------------------------</td>
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<td>-------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Godfrey 2008, England, CINAHL</td>
<td><strong>Living with a long-term urinary catheter: older people's experiences.</strong></td>
<td>Qualitative method. Grounded theory approach. In-depth interviews with interview guide, digitally recorded and transcribed verbatim. Constant comparative method of analysis.</td>
<td>13 older people participated in the study.</td>
<td>Older people accepted the catheter as an integral part of their lives and felt at ease without loss of their identity. Factors like feeling uneasy, embarrassment, distaste and physical restraint due to loss of dignity, body image were experienced by the older people. Furthermore, patients experienced uneasy relationship or difficulty interacting with others.</td>
</tr>
<tr>
<td>Kralik, Seymour, Eastwood &amp; Koch 2007, Australia, CINAHL</td>
<td><strong>Managing the self: living with an indwelling urinary catheter.</strong></td>
<td>Qualitative method. Structured interviews. Collaborative data analysis</td>
<td>21 people participated in the study</td>
<td>The results were both positive and negative experiences. Participants expressed the importance to learn urinary catheter self-care. This helps the participants resisting the intrusion of a catheter; reckoning with the need for a catheter; being vigilant/watchful for signs of problem such as infections, blockages; reconciling between the needs of self and others; re-claiming life/improving quality of life; managing self-care to the activities of these people to create order in their lives and learning to manage/taking control over catheter care,</td>
</tr>
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</table>
The aim of this study was to improve understanding of living with an indwelling urinary catheter from the patients’ perspective. | Qualitative method. Narrative interviews with interview guide, semi-structured, audio/video recorded and transcribed. Thematic analysis with constant comparison.  
36 adult patients participated in the study. | Patients explained that indwelling urinary catheter solved problems with urinary retention and incontinence, gave them freedom to leave the house for work or social activities and problems such as blockages, leakages, urinary tract infections, bladder spasms. A few participants express negative feelings such as embarrassment or nuisance, affected self-image and lack of confidence, most patients expressed the need for more information on how to manage the indwelling urinary catheter. Patients explained that an indwelling urinary catheter could affect sexual intimacy. Pain and soreness was experienced after sex. Lack of information during consultation was also evident. Some patients expressed the need for continuity of care from same nurses to avoid painful experiences during catheter change caused by bladder spasm. Patients also expressed the need for a new catheter design. | Average Part 1: 4/4  
Part 2: 6/8  
Ethically approved |
<table>
<thead>
<tr>
<th>Author(s)</th>
<th>Title</th>
<th>Study Description</th>
<th>Methodology</th>
<th>Findings</th>
<th>Ethical Approval</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prinjha, Chapple, Feneley, &amp; Mangnall 2016, United Kingdom, CINAHL</td>
<td>Exploring the information needs of people living with a long-term indwelling urinary catheter: a qualitative study.</td>
<td>The aim of this study is to explore the information needs of long-term indwelling urinary catheter users, the consequences for patients of inadequate information and how these needs could be met.</td>
<td>A qualitative interpretative approach. Narrative and in-depth interviews with interview guide. Thematic analysis with constant comparison.</td>
<td>36 people participated in the study. Participants expressed the importance of having more information about catheter, sexual activity, managing a social life with catheter and how to prevent catheter-related physical problems.</td>
<td>Part 1: 4/4 Part 2: ⅞ Ethically approved.</td>
</tr>
<tr>
<td>Safdar, Codispoti, Purvis &amp; Knobloch 2016, USA, CINAHL</td>
<td>Patient perspectives on indwelling urinary catheter use in the hospital.</td>
<td>The aim of this study is to examine patient’s perspective on indwelling urinary catheters in the acute care setting</td>
<td>Qualitative method. Semi-structured interviews audio recorded and transcribed. Systematic textual analysis using Corbin and Strauss coding method.</td>
<td>Twenty adult patients participated in the study. Some patients explained that having an indwelling urinary catheter was convenient because patients do not have to get up and go to the bathroom. On the other hand, indwelling urinary catheter are associated increase risk for infection, discomfort and pain, sense of restriction in mobility. A few patients expressed lack of information about the risks involved with having indwelling catheter.</td>
<td>High Part 1: 4/4 Part 2: 7/8 Ethically approved.</td>
</tr>
</tbody>
</table>
| Sweeney, Harrington & Button 2007, Australia, Medline | **Suprapubic Catheters - A Shared Understanding, From the Other Side Looking In.**  
The aim of this study was to explore the experiences of people living with a suprapubic catheter.  
Qualitative method.  
Gadamerian Hermeneutics.  
Unstructured in-depth interviews recorded and transcribed verbatim  
Inductive data analysis  
Thematic analysis  
6 adults participated in the study | Patients expressed that body image and sexuality was negatively affected. Psychological unpreparedness need for continuous adjustment and need for support were also expressed by the participants. | Average Part 1:  
4/4  
Part 2:  
6/8  
Ethically approved |
Appendix III: Protokoll för basala kvalitetskriterier för studier med kvalitativ metod

<table>
<thead>
<tr>
<th>Titel:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Författare:</td>
</tr>
<tr>
<td>Årtal:</td>
</tr>
<tr>
<td>Tidskrift:</td>
</tr>
</tbody>
</table>

**Del I. Beskrivning av studien**

Beskrivs problemet i bakgrund/inledning?  □  Ja  □  Nej
Kunskapsläget inom det aktuella området är beskrivet?  □  Ja  □  Nej
Är syftet relevant till ert examensarbete?  □  Ja  □  Nej
Är urvalet beskrivet?  □  Nej  □  Ja

Samtliga frågor ska besvaras med ja för att artikeln ska granskas med hjälp av frågorna i Del II. Vid Nej på någon av frågorna ovan exkluderas artikeln.

**Del II Kvalitetsfrågor**

Beskrivs vald kvalitativ metod?  □  Ja  □  Nej
Hänger metod och syfte ihop?  □  Ja  □  Nej
(Kvalitativt syfte – kvalitativ metod)
Beskrivs datainsamlingen?  □  Nej  □  Ja
Beskrivs dataanalysen?  □  Ja  □  Nej
Beskrivs etiskt tillstånd/förhållningssätt/ ställningstagande?  □  Nej

Diskuteras metoden mot kvalitetssäkringsbegrepp (t ex tillförlitlighet och trovärdighet) i diskussionen?  □  Nej
Diskuteras huvudfynd i resultatdiskussionen?  □  Nej
Sker återkoppling, från bakgrunden gällande, teori, begrepp eller förhållningssätt i diskussionen?  □  Nej  □  Ja
Är resultatet relevant för ert syfte?
Om ja, beskriv:
......................................................................................................................................................
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......................................................................................................................................................

Om nej, motivera kort varför och exkludera artikeln:
......................................................................................................................................................
......................................................................................................................................................
......................................................................................................................................................

Forskningsmetod/-design (t ex fenomenologi, grounded theory)
......................................................................................................................................................
......................................................................................................................................................

Deltagarkarakteristiska
Antal......................
Ålder......................
Man/Kvinna.............

Granskare sign: .................................................................

Framtaget vid Avdelningen för omvårdnad, Hälsohögskolan i Jönköping/henr