Patients’ Experiences of Day Surgery

A literature review

Aknur Atayeva
Racheal Ashamu
Sarah Muthoka

Bachelor’s thesis
November 2019
Social Services, Health and Sport
Degree Program in Nursing
Patients’ Experiences of Day Surgery.
A literature Review

The aim of this study was to understand the experiences of patients in day surgical care through existing literatures. The purpose was to find ways to improve the outcome of patients’ day surgical care. The study was conducted as a literature review and data was collected using two databases namely: CINAHL and PubMed. Results from fifteen articles were analyzed using inductive content analysis method. The results show three main themes: patients’ physical experiences in day surgery, patients’ psychological experiences in day surgery and healthcare system aspect in day surgery and six subthemes namely; pain, post-anesthesia nausea and vomiting, effects of anxiety and discomfort on daily life, time and waiting, nursing interventions, education and access to information provision.
Based on the results, surgery patients should focus on ensuring a patient centered approach that is balanced in the application of nursing practices. It should also have achievable interventions by focusing more on the total patients’ experience and not solely on the brief time spent in the acute setting to maintain a high quality of patient care and utilization of sparse resources in healthcare services. Contemporary nursing is vital for continuous improvement in the future of modern day surgery, therefore, further review is recommended to explore the follow-up care during recovery at home of patients with limited access to healthcare professionals, nurse-led support services and challenges of inadequate information during the first few days after discharge.

Keywords (subjects):
Day surgery, Ambulatory surgery, Perioperative care, Surgical patients’ experience, Patients’ perceptions and satisfaction.

Miscellaneous
# Table of Contents

1. **Introduction** ................................................................................................................. 3  
2. **Concept of Day Surgery** ................................................................................................. 4  
   2.1 Day surgery .................................................................................................................... 4  
   2.2 Criteria for the selection of patients to day surgery ..................................................... 6  
   2.3 Advantages and disadvantages of day surgery .............................................................. 7  
   2.4 Day surgery quality indicators ..................................................................................... 9  
3. **Nursing in different phases of day surgery** ................................................................. 10  
   3.1 Preoperative Phase ........................................................................................................ 11  
   3.2 Intra operative phase .................................................................................................... 11  
   3.3 Post-operative phase .................................................................................................... 12  
   3.4 Relevance of the family in phases of day surgery ....................................................... 12  
4. **Aim, purpose & research question** ................................................................................ 14  
5. **Methods and implementation of the study** .................................................................. 14  
   5.1 Literature Review .......................................................................................................... 14  
   5.2 Data Search ................................................................................................................ 15  
   5.3 Data analysis and synthesis of data ............................................................................. 17  
6. **Results** .......................................................................................................................... 18  
   6.1 Patients’ physical experiences in day surgery ............................................................. 19  
   6.2 Patients’ psychological experiences in day surgery .................................................. 22  
   6.3 Healthcare system aspect in day surgery .................................................................. 23  
7. **Discussion** ..................................................................................................................... 28  
   7.1 Ethical considerations, validity and reliability ............................................................ 28  
   7.2 Discussion of the results .............................................................................................. 30  
   7.3 Conclusion .................................................................................................................... 34  
8. **References** .................................................................................................................... 35  
9. **Appendices** ................................................................................................................... 42
Tables

Table 1. Data search ........................................................................................................................................... 15
Table 2. Inclusion & exclusion criteria .............................................................................................................. 16

Figures

Figure 1. Comparison of surgeries by body system in hospital-owned ambulatory versus inpatient settings. ........................................................................................................................................ 5
Figure 2. Data analysis example .......................................................................................................................... 18
1 Introduction

Since 1980s the expansion of global day surgery has revolutionized the delivery of healthcare by surgeons, anesthetists, nurses and managers alike (Lemos et al. 2006; International Association for Ambulatory Surgery 2014; Anderson, Walls, & Canelo 2017).

Day surgery, also known as ambulatory surgery, is defined as the admission of a patient for investigation and surgery, who then is discharged home within one day (Verma et al. 2011; Ng, & Mercer-Jones 2014; International Association for Ambulatory Surgery 2014). Due to advances in surgical techniques, economic initiatives and lifestyle changes, resource utilization, value for money and customer satisfaction there has been an increase in the amount of complex surgical interventions now being performed as day surgery globally (Ng, & Mercer-Jones 2014; Anderson, Walls, & Canelo 2017; Fabricant et al. 2016). Procedures which were previously performed as inpatient cases are now considered appropriate for day surgery (Castoro et al. 2007; International Association for Ambulatory Surgery 2014; Anderson, Walls, & Canelo 2017).

Many countries have developed their own national guidelines for day surgery (Anderson et al. 2017). There appears to be considerable variation, not just in the specifics of the recommendations which have been made, but also in the bodies which have issued guidelines, the weight they carry and the extent to which they are recognized and adhered to (Lemos et al. 2006; International Association for Ambulatory Surgery 2014; Anderson et al. 2017).

Ambulatory (day) surgery is not a new concept (International Association for Ambulatory Surgery 2014). However, it took several years for the practice to be established in hospital environment. The delay for the concept acceptance varied depending on the common issues within countries health care facilities. The barriers to the development of day surgery came from different methods of medical insurance payments combined with the apathy from central governments, hospital
According to Berg et al. (2013), Mottram (2011b), and Lemos et al. (2009), most surgical patients appreciate day surgery over in-hospital surgical procedures as they perceive it to be less risky. However, the professional post-operative care they receive tends to be minimal since post-operative care is given to them by their families (Majholm et al. 2012; Berg et al. 2013; Berg et al. 2016; International Association for Ambulatory Surgery 2014). Current literature review research aims at exploring the experiences of day surgery patients in order to improve the outcome of care provided in day surgery.

2 Concept of Day Surgery

2.1 Day surgery

The expansion of global day surgery has revolutionized the delivery of healthcare (Quemby, & Stocker 2014; Lemos et al. 2006; International Association for Ambulatory Surgery 2014; Anderson et al. 2017). Being first performed by James Nicoll in 19th century, it only returned to the health care environment in 1960 (International Association for Ambulatory Surgery 2014).

Continually evolving and expanding throughout the world, day surgery has slowly settled its concept in many countries (Verma et al. 2011; Berg et al. 2013; Anderson et al. 2017). Nowadays, day surgery is an innovative approach to the delivery of surgical care that implies hospitalization of carefully selected patients on the day of surgery and their subsequent discharge within hours of the surgical procedure (Buckley et al. 2010; International Association for Ambulatory Surgery 2014 Anderson, Walls, & Canelo 2017).

Day surgery is a high quality, safe, and cost-efficient approach to surgical healthcare (Ng, & Mercer-Jones 2014; Anderson et al. 2017; Fabricant et al. 2016; Calabro et al. 
Leading in the line, the USA and Canada, with nearly 90% of all elective procedures performed as day surgery, give the prominent sample of implication of day surgery system in treatment, followed by the Scandinavian countries, which perform approximately 75% of all elective procedures as day surgery (Figure 1) (Toftgaard, & Parmentier 2006; Buckley et al. 2010; Toftgaard 2012; Anderson, Walls, & Canelo 2017).

Figure 1. Comparison of surgeries by body system in hospital-owned ambulatory versus inpatient settings (adapted from Agency for Healthcare Research and Quality (AHRQ), Center for Delivery, Organization, and Markets, Healthcare Cost and Utilization ProProject (HCUP), State Ambulatory Surgery and Services Databases (SASD) and State Inpatient Databases (SID), 2012, from 28 States).

Driven by the demographic, epidemiological, social and economic pressures, which many health care systems will face in future, day surgery adoption will not only present an appropriate response to the current segmentation of care delivery but more generally and importantly optimize the delivery of high standard care (Buckley...
2.2 Criteria for the selection of patients to day surgery

Patients usually could be referred for day surgery from outpatient, accident and emergency departments or primary care (Verma et al. 2011).

Careful selection of patients is key to success in day surgery because it reduces the intra-operative and postoperative complications as well as minimizes delays and cancellations (Buckley et al. 2010; International Association for Ambulatory Surgery 2014; Lee 2017; Anderson et al. 2017). It is recommended to identify medical, surgical, physical, social and environmental problems in the perioperative assessment of the patient. Advance assessment provides a valuable opportunity to consider and treat existing diseases, supply information and answer patients’ questions, thereby improving the overall quality of their experience. (International Association for Ambulatory Surgery 2014; Anderson et al. 2017; Calabro et al. 2018.)

Patients who are eligible for day surgery and those who require inpatient admission should be distinguished on a case-by-case basis (International Association for Ambulatory Surgery 2014). The final decision as to whether a patient is eligible for day surgery or not is the responsibility of the surgeon and/or anesthesiologist involved, however a multidisciplinary approach of patient assessment is recommended (Lee 2017; Venclauskas et al. 2018; Buckley et al. 2010; Anderson et al. 2017).

In day surgery patient assessment mainly falls into social, medical and surgical factors (International Association for Ambulatory Surgery 2014; Anderson et al. 2017). Socially, patient must understand the procedure and it’s required care such that the patient's domestic situation is appropriate for post-operative care, for example, the availability of a caretaker for the first twenty-four hours post-surgery (Majholm et al. 2010; International Association for Ambulatory Surgery 2014; Anderson et al. 2017; Fabricant et al. 2016; Calabro et al. 2018).
Secondly, medical factors such as patients’ fitness for surgery should be based on their overall physiological status and not arbitrarily limited by age, weight or anesthetic risk. Patients with stable chronic diseases like diabetes, asthma or epilepsy can be better managed causing minimal disruption to their daily routine. (International Association for Ambulatory Surgery 2014; Anderson, Walls, & Canelo 2017; Calabro et al. 2018.)

Thirdly, surgical factors are assessed so that the procedure should not carry a significant risk of serious complications requiring immediate medical attention, for example cardiovascular instability. Also, the postoperative symptoms should be controllable, the procedure should not stop patient from resuming oral intake of fluids and medications few hours later and patients should be able to mobilize, although full mobilization is not usually essential. (Buckley et al. 2010; International Association for Ambulatory Surgery 2014; Verma et al. 2011.)

Preoperative assessment should ideally occur as close as possible to the intended day of surgery in order to give maximum time for optimization of medical conditions, hence reducing the risk of cancellation as well as allowing patients and their relatives to become accustomed to this environment and staff before the day of surgery. In comparison with inpatient admission the patient is given a bigger responsibility in day surgery in terms of managing the pre-operative preparation and recovery from the surgery at home. (Buckley et al. 2010; Majholm et al. 2012; Berg et al. 2013; Shepperd et al. 2013; Gonçalves-Bradley et al. 2016; Jun et al. 2017; International Association for Ambulatory Surgery 2014.)

2.3 Advantages and disadvantages of day surgery

When compared to inpatient surgery there is a wide range of advantages for day surgery in relation to medical, social and economic dimensions (International Association for Ambulatory Surgery 2014).
Day surgery poses the least possible disruptions to the everyday life of the patient, because the patient returns home the same day as the surgical procedure has been performed (International Association for Ambulatory Surgery 2014). It has been proven that the limited time spent in hospital settings eliminates incidences of hospital acquired infections hence, safety and quality of day surgery increases by lowering the mortality rates and post-operative complications (Verma et al. 2011; Shepperd et al. 2013; Gonçalves-Bradley et al. 2016; International Association for Ambulatory Surgery 2014).

Pre-booked dates and little chances of cancelation, shorter waiting lists and lesser uncertainty of a long wait are of great benefits to the patients, where they are spared from the psychological stress accompanied with the approaching surgery (International Association for Ambulatory Surgery 2014). Earlier return to normal life, avoidance of disruptive nights in hospital wards, the shortening in the separation time from family members and less psychological disturbances in children are other advantages of day surgery (International Association for Ambulatory Surgery 2014; Shepperd et al. 2013; Gonçalves-Bradley et al. 2016).

Participants in day surgery have benefited as demonstrated by public interest and demand, surgeon satisfaction, patient participation and most importantly, payer encouragement and mandate (Shepperd et al. 2013; International Association for Ambulatory Surgery 2014; Fabricant et al. 2016; Gonçalves-Bradley et al. 2016; Anderson et al. 2017). Being cost-effective and useful, day (ambulatory) surgery is increasingly being accepted and encouraged throughout the world by both government and private agencies (Buckley et al. 2010; Fabricant et al. 2016; Anderson et al. 2017). Due to the less staff members requirements in day surgery compared to the in-patient ward, the costs of hiring more healthcare professionals lowers. Properly organized schedules of the in-patient care clients and those who can be admitted and treated in day care enhance and improve the productivity of staff and equipment. (Shepperd et al. 2013; International Association for Ambulatory Surgery 2014; Gonçalves-Bradley et al. 2016; Reinhart et al. 2018.)
However, while there are many advantages of day surgery, a few disadvantages exist as well. Current practice of day surgeries provides a cost-effective quality of care nevertheless, surgical factors alongside with the discharge causes main challenges. (Shnaider et al. 2006; Majholm et al. 2012; Dodaro et al. 2013; Mayo et al. 2019.) Demands on the families increases when the lack of support from healthcare sector is present, where the special attention is to be paid to the management in the postoperative period (Berg et al. 2013; Berg et al. 2016; Shepperd et al. 2013; Gonçalves-Bradley et al. 2016; Jaensson et al. 2017; Jun et al. 2017; Majholm et al. 2012; Mayo et al. 2019).

Patient satisfaction influences the outcome and utilization of healthcare. However, the major misconception of day surgery as a fast and same day recovery procedure may affect the patients’ expectations for the recovery period, hence their ability to resume daily function. (Shnaider et al. 2006; Verma et al. 2011; Mottram 2011c; Mayo et al. 2019.) Adverse effects such as post-operative nausea and vomiting is prevalent and affects overall patient experience (Buckley et al. 2010; Fabricant et al. 2016; Shnaider et al. 2006). Pain is also a common cause of unexpected postoperative admission, readmission and prolong hospital stay, when not managed properly and actively (Buckley et al. 2010; Shnaider et al. 206; Mayo et al. 2019).

2.4 Day surgery quality indicators

Major mortality and infection rates are quality indicators of in-patient care, while patient's satisfaction and overall patient’s condition are considered to be more relevant indicators of quality of care in ambulatory surgery (Berg et al. 2013; Lemos et al. 2006; International Association for Ambulatory Surgery 2014; Calabro et al. 2018).

Delayed discharge, patient satisfaction, return to normal activity, use of the healthcare system and the healthcare professionals’ point of view are indicators that are commonly used to assess the quality of care in day surgery (Berg et al. 2013; Berg
et al. 2016; International Association for Ambulatory Surgery 2014; Calabro et al. 2018). It is important to understand the experiences of patients as they can be used to inform local decision-making, changes to care delivery and improvements in patient care. Hence, the performance and quality of healthcare organizations in day surgery are moving beyond examining the provision of excellent clinical care, but also embracing the patient experience as an important factor in healthcare. (McCutcheon, & Gormley 2014; Juan et al. 2017; Calabro et al. 2018.)

Effective audit is an essential component of assessing, monitoring and maintaining the efficiency and quality factors of patient care in day surgery units (Verma et al. 2011; Petersen 2014; Wolf et al. 2014; Jaensson et al. 2017; International Association for Ambulatory Surgery 2014; Calabro et al. 2018).

3 Nursing in different phases of day surgery

The development of day surgery has led to changes in surgical nursing practice (Howatson-Jones et al. 2008). Nursing intervention in day surgery aims to ensure a patient-centered approach in care, a balance between extended nursing practices and the application of interventions rooted in nursing science. (Mitchell 2010; Jun et al. 2017; Anderson et al. 2017; Jaensson et al. 2017; Calabro et al. 2018.)

Perioperative nurses provide nursing care during all phases of day surgery (Goodman et al. 2014). The perioperative care of day surgery starts as soon as the patient is informed of the need for surgical operation. It includes the surgery, recovery and proceeds until the surgical patients resumes usual activities. (Goodman et al. 2014.) The perioperative experience can be divided into three phases namely: preoperative, intraoperative and postoperative (International Association for Ambulatory Surgery 2014; Goodman et al. 2014).
3.1 Preoperative Phase

Preoperative preparation comprises of three components which are: educating patients and their relatives about day surgery, providing verbal and/or written information about the planned operations and identifying medical risk factors, health promotion and optimizing patient’s condition (Verma et al. 2011; International Association for Ambulatory Surgery 2014; Calabro et al. 2018). It includes preparing the patients physically and psychologically for the surgery before and after admission to the surgical facility and the assessment of patient's social circumstances and home support level of independence (Majholm et al. 2012; Goodman et al. 2014; Model of Care for Elective Surgery 2011; International Association for Ambulatory Surgery 2014; Calabro et al. 2018).

During this phase all parts of the treatment are considered, and probable outcomes given to the client and their family to prepare them for the situation that might occur during and/or after surgery. Proper and correct led pre-operative preparation reduces cancellations, delays and readmissions, diminishes the anxiety by psychologically readying patient to the surgery and improves overall experience of day surgery. (Buckley et al. 2010; Majholm et al. 2012; International Association for Ambulatory Surgery 2014.)

3.2 Intra Operative Phase

This phase starts with the arrival of the patient into the operating theater and ends when the patient has been transferred to the postsurgical care unit. During this period, the patient is monitored, anesthetized and prepared for the procedure to be performed. The nursing activities here focus on facilitation of the procedure, patient safety, prevention of infection, a satisfactory physiological response of the patient to anesthesia during surgery, emotional support and surgical intervention. (Goodman et al. 2014.)
### 3.3 Post-operative phase

Post-operative phase includes post anesthetic care and discharge from hospital. The complexity of the surgery determines the duration of the post-operative period however, most ambulatory surgery patients may be almost ready to be discharged following their admission into the post anesthetic care unit. In day surgery, many perioperative nurses provide care in the operating room and post anesthetic unit as a way of utilizing nursing resources and increasing efficiency. (International Association for Ambulatory Surgery 2014; Goodman et al. 2014.)

Verbal and written instructions should be given to patients on discharge as well as making them aware of any symptoms they might experience (Berg et al. 2013; Berg et al. 2016; International Association for Ambulatory Surgery 2014; Anderson et al. 2017). These instructions are given to the patient and the person who is responsible for taking care of the patient at home (Berg et al. 2013; Berg et al. 2016; International Association for Ambulatory Surgery 2014). Day surgery units must agree with their local primary care teams on how to support patients in the event of postoperative problems. The best practices in supporting the patients who undergo day surgery is the provision of helplines available for the first 24 hours after discharge and follow up on the patients the next day after surgery. (Verma et al. 2011; Shepperd et al. 2013; Gonçalves-Bradley et al. 2016; International Association for Ambulatory Surgery 2014; Jaensson et al. 2017; Calabro et al. 2018.)

### 3.4 Relevance of the family in phases of day surgery

Day Surgery is more than delivering of surgical procedures, but is a system of care that incorporates various health micro-systems such as patients and their families, surgical teams who select the patients, day surgery nurses who inform and empower patients and community nurses who assist patients at home (Bowling et al. 2012).
Standing out from the whole system of day surgery is family involvement. Being an integral part of social selection criteria and eligibility for day surgery, family-centered approach became a crucial link in the whole peri-operative phase of ambulatory surgery. (Bellou, & Gerogianni 2007; Majholm et al. 2012; International Association for Ambulatory Surgery 2014; Jun et al. 2017; Calabro et al. 2018.) It is always up to patients to define who is family to them and how they can be involved in their care. Nevertheless, concept of “family” remains of significance in ensuring the quality and safety in day surgery. (Majholm et al. 2012; International Association for Ambulatory Surgery 2014; Calabro et al. 2018.)

Family provides strong emotional and psychological support for the members who are undergoing the day surgery, by encouraging them to correspond effectively in treatment one follows, decreasing the stress and motivating the patient to participate in self-care (Bellou, & Gerogianni 2007; Majholm et al. 2012). Relationship between family and patient, their knowledge needs and understanding regarding the normal recovery pattern and active participation in care path are great factors affecting the outcome of day surgery (Majholm et al. 2012; Berg et al. 2016; Jun et al. 2017; Cardoso-Moreno et al. 2017; Calabro et al. 2018).

Satisfaction of family is equally important to patients own satisfaction from day surgery. Therefore, all health-care members try to actively involve family in care by treating them as a valuable part for successful outcome of treatment. (Berg et al. 2013; Berg et al. 2016; Shepperd et al. 2013; Gonçalves-Bradley et al. 2016; Jaensson et al. 2017; Jun et al. 2017; Majholm et al. 2012.) This can be achieved by creating a supportive communication channel between the patients, their families and the hospital staff (Majholm et al. 2012; Mathias 2013; International Association for Ambulatory Surgery 2014; Calabro et al. 2018).
4  Aim, purpose & research question

The aim of this literature review research work was to understand the experiences of patients in day surgery. The purpose was to find ways to improve the outcome of patient's day surgery care.

Research Question: What are the experiences of patients in day surgical care?

5  Methods and implementation of the study

5.1 Literature Review

Literature reviews are used to bridge the gap between clinical practice and research (Baker 2016). It is essentially a survey of scholarly published materials which provides a description, summary, and critical evaluation of a topic or area of research (Daren 2015).

The selected research materials should be current and assist in outlining the aims and purpose of research as well as strengthen the argument about the research topic (Faryadi 2018). The ability to synthesize and summarize previous research pertaining to a topic demonstrates the possession of a good grasp on the information available on a topic and assists in the learning process (Denney et al. 2013).

Nurses may utilize the different types of literature reviews to aid the determination of the best practices for various clinical interventions such as improving patient safety and reducing medication errors (Baker 2016).

Literature review method was used to conduct the current study by a thorough review of selected articles. This method was chosen by the authors to assist in utilizing previous studies in exploring the experiences of patients in day surgery to facilitate the fulfillment of current research purpose which is to discover ways of improving patient outcome in day surgery.
5.2 Data Search

The data for current literature review was collected from the article databases of CINAHL (Ebsco) and PubMed. The key words used for the articles search were ambulatory surgery, day surgery, patient’s experience, surgical patients, experiences and their synonyms as illustrated in the Table 1 below.

Table 1. Data search

<table>
<thead>
<tr>
<th>Databases</th>
<th>Key Terms</th>
<th>Results</th>
<th>Chosen on the basis of full text limiter, title</th>
<th>Chosen on the basis of abstract</th>
<th>Final selection after reading full text</th>
</tr>
</thead>
<tbody>
<tr>
<td>CINAHL</td>
<td>“day surgery” OR “ambulatory surgery” AND “surgical patient*” OR “patient*”</td>
<td>890</td>
<td>93</td>
<td>35</td>
<td>10</td>
</tr>
<tr>
<td>PubMed</td>
<td>“Patients’ experience” OR “perceptions” OR “views” OR “attitude” OR “feelings” OR “patient* satisfaction”</td>
<td>417</td>
<td>20</td>
<td>10</td>
<td>5</td>
</tr>
</tbody>
</table>
The articles and their selection for the use in this review work were chosen based on inclusion and exclusion criteria illustrated in the Table 2 below.

Table 2. Inclusion & exclusion criteria

<table>
<thead>
<tr>
<th>Inclusion criteria</th>
<th>Exclusion criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>Language of publication in English</td>
<td>Experiences of patients in surgeries other than day/ambulatory surgery</td>
</tr>
<tr>
<td>Articles published between 2000-2019</td>
<td>Duplicate articles</td>
</tr>
<tr>
<td>Articles have full text access for JAMK students</td>
<td>Other types of surgeries other than day/ambulatory surgery</td>
</tr>
<tr>
<td>The articles are scientific based and may include theses (masters or doctoral)</td>
<td>Topics of acute day surgery and pediatric day surgery</td>
</tr>
<tr>
<td>Articles related to the research topic and peer reviewed</td>
<td></td>
</tr>
<tr>
<td>Articles answer research question</td>
<td></td>
</tr>
</tbody>
</table>
5.3 Data analysis and synthesis of data

Qualitative data analysis is the processes of examining qualitative data to derive an explanation for a specific phenomenon in order to understand the research objectives by revealing the themes or patterns of the data used in research. The main purpose of data analysis is to organize data for interpretation by creating patterns that can be identified to form a basis of informed and verifiable conclusion. (Hsieh, & Shannon 2005.)

Content analysis is defined as categorizing approach, which explores large amounts of information, determining patterns of words used, frequency and relationships and thematic approach is the one used for identification, analysis and report of pattern within the existing data (Vaismoradi et al. 2013; Braun, & Clarke 2006).

Content analysis is commonly used in nursing studies either in the form of inductive or deductive analysis. Moreover, content analysis is an option for qualitative approaches when providing evidence concerning sensitive topics. Inductive content analysis can be used when no previous studies about the phenomenon in hand exist, or when it’s fragmented. (Elo, & Kyngäs 2008, 107, 114.) Therefore, an inductive content analysis method was chosen and followed to conduct the data analysis for current literature review. An inductive content analysis was conducted following the three main phases: preparation, organization, and reporting of results. The preparation phase consisted of appropriate data selection, acknowledging and understanding the collected data and deciding on the suitable unit of analysis. (Elo, & Kyngäs 2008.) The data was then further subdivided into open themes that further emphasized and elaborated the main findings of the reviewed articles. In the second phase similar themes were clustered together to form sub themes which were further synthesized and named using content characteristic words to draw theoretical conclusions (Elo, & Kyngäs 2008). Figure 2 below illustrates sample of the step-by-step data analysis process.
6 Results

Analysis and synthesis of the reviewed materials selected for the use in the current work formed three main themes of experiences of patients in day surgery: patients physical experiences, patients' psychological experiences and healthcare system aspect in day surgery (Table 3). Interconnected and corelated with each other, mentioned above topics fulfill the overall understanding of patients' experiences.

Table 3. Day surgery experiences of patients categorized into main themes and subcategories

<table>
<thead>
<tr>
<th>Research question</th>
<th>Themes</th>
<th>Sub-themes</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Patients’ physical experiences in day surgery</td>
<td>➢ Pain</td>
</tr>
<tr>
<td></td>
<td></td>
<td>➢ PONV</td>
</tr>
</tbody>
</table>
Patients’ experience of the day surgery

<table>
<thead>
<tr>
<th>Patients’ psychological experiences in day surgery</th>
<th>➢ Effects of anxiety and discomfort on daily life</th>
</tr>
</thead>
<tbody>
<tr>
<td>Healthcare system aspect in day surgery.</td>
<td>➢ Time and waiting</td>
</tr>
<tr>
<td></td>
<td>➢ Nursing interventions</td>
</tr>
<tr>
<td></td>
<td>➢ Education and access to information provision</td>
</tr>
</tbody>
</table>

6.1 Patients’ physical experiences in day surgery

Pain

Pain, is the phenomenon, experienced as a major symptom of discomfort in day surgery (Rosen et al. 2010; Stessel, Fiddelers, Joosten, Hoofwijk, Gramke, & Buhre 2015). Being a big disruption in certain period of patient’s life, surgery is usually characterized by the pain and wound problems throughout the whole recovery period (Flanagan 2009; Rosen et al. 2010; Greenslade et al. 2010).

According to the research works performed on the topic, duration of pain and its perception by patients varies dramatically (Rosen et al. 2010; Stessel, Fiddelers, Joosten, Hoofwijk, Gramke, & Buhre 2015). Symptoms of pain may be observed as on the first 24 hours after the surgery, as well as 3 months later (Flanagan 2009; Rosen...
et al. 2010). Mild to severe pain levels reported on the day of the surgery itself, aggravated following discharge on the second and third days (Flanagan 2009; Rosen et al. 2010; Stessel, Fiddelers, Joosten, Hoofwijk, Gramke, & Buhre 2015).

Factors affecting the quality outcome and pain scale results are individual for every patient (Rosen et al. 2010; Stessel, Fiddelers, Joosten, Hoofwijk, Gramke, & Buhre 2015). However, there are common characteristics for majority of the cases, such as type of surgery and its duration, age, previous experience, work status, social and psychological situation on the period of patients undergoing day surgery (Stessel, Fiddelers, Joosten, Hoofwijk, Gramke, & Buhre 2015). Acute pain levels were screened at the younger aged patients, those who had no previous experience, insufficient education and when the matter of work stands on the way of recovery time duration (Stessel, Fiddelers, Joosten, Hoofwijk, Gramke, & Buhre 2015). Whereas, previously acknowledged and accurately informed about the expectations from the whole procedure and proper anesthesia patients have eliminated pain experience (Stessel, Fiddelers, Joosten, Hoofwijk, Gramke, & Buhre 2015; Gonzales et al. 2010).

Postoperative pain is a factor significantly affecting on the readmission rates, late discharge, sleeping and mood disturbances (Rosen et al. 2010; O’donnell 2018). Occurrence of situations of such a kind, put the whole day surgery procedure under question and negative experience is frequently reported by patients (Rosen et al. 2010; O’donnell 2018). Majority of the cases refer to increased level of anxiety caused by belief that the surgery was being wrongly performed, insufficient healthcare and information access due to constant pain feelings (Rosen et al. 2010; Greenslade et al. 2010; O’donnell 2018; Gonzales et al. 2010). Patients feel abandoned and left to rely on their own (Rosen et al. 2010). Increasing responsibility builds on the family and careers, when symptoms are not getting better (O’donnell 2018).

Patients undergoing day surgery procedure are recommended to mobilize soon after the operation. Nevertheless, persisting pain symptoms for long periods impact on the daily life of patients. (Rosen et al. 2010; Stessel, Fiddelers, Joosten, Hoofwijk,
Pain acts as a predictor on the speed of returning to daily activities (Rosen et al. 2010; O’donnell 2018). Its management is an essential tool for the successful and smooth return to the previous lifestyle (Rosen et al. 2010; O’donnell 2018). Multimodal analgesia is considered one of the best choices for the day surgery with the minimal side effects and little financial pressure coming from its usage throughout the perioperative period to the health-care facilities (McCloy, & McCutcheon 2016; Stessel, Fiddelers, Joosten, Hoofwijk, Gramke, & Buhre 2015; Öbrink et al. 2015).

Nursing care has great impact on the outcome of the day surgery pain experience (Flanagan 2009; Richardson, & Brown 2013; Öbrink et al. 2015). The studies highlight the importance of the responsible attitude towards the patients who undergo the day surgery at different stages of recovery and their assessment over the time (Flanagan 2009; Rosen et al. 2010; Öbrink et al. 2015). Reduced pain and wound discomfort level have been monitored in cases when patient got proper education in the preoperative phase and well timed follow up calls were organized by nurses (Flanagan 2009; Richardson, & Brown 2013; Greenslade et al. 2010). This put the emphasis on the importance of information provision and education levels, influencing the pain symptoms and general satisfaction from day surgical procedure (Richardson, & Brown 2013; Greenslade et al. 2010; Stessel, Fiddelers, Joosten, Hoofwijk, Gramke, & Buhre 2015).

**Postoperative nausea and vomiting**

Review of the articles suggest that even with the preoperative education, patients find themselves in the situation where the post-operative period is the reality to which they are neither prepared, nor able to manage by themselves (Flanagan 2009).

Post-operative nausea and vomiting (PONV) is the post-operative complication occurring to one-third of surgical patients within first 24 hours after the surgery have
been performed (Brenner, & Kautz 2015; Öbrink et al. 2015; Kovac 2014). It occurs in almost equal quantity at inpatient and outpatient stay (Öbrink et al. 2015).

The first onset of the physical symptoms starts after 12 hours. However, emetic symptoms may also occur at the late stage, symbolizing post discharge nausea and vomiting (PDNV) as the most negative impact on the quality outcome. (Öbrink et al. 2015.) Risk factors triggering the symptoms vary to the patient's individual perception of anesthesia therapy and surgery type (Kovac 2014; Öbrink et al. 2015; Brenner, & Kautz 2015). Nevertheless, day surgery group patients are in greater risk of the complications influencing the quality outcome due to the less intense medical and nursing observations after the discharge (Kovac 2014; Brenner, & Kautz 2015).

PONV and postoperative discharge nausea (PDNV) increase the morbidity and healthcare costs (Brenner, & Kautz 2015). Inclusion of one or two multimodal prophylactic antiemetics can decrease the pressure on the safe home discharge following day surgery patients (Kovac 2014; Öbrink et al. 2015). Reduction in the patient's risk factors decrease the possibility of occurrence of the PONV and PDNV after the surgery and improve experience from day surgery (Kovac 2014; Öbrink et al. 2015).

6.2 Patients’ psychological experiences in day surgery

Effects of anxiety and discomfort on daily life

Patients tend to assess discomfort from the perspective of its effects on daily life. Their experience of discomfort during the recovery period after day surgery varies in personal ways and extends over a longer period than previously known. (Caldinhas, & Ferrinho 2013; Rosen et al. 2010; Öbrink et al. 2015.) Perioperative period is an anxious and extremely stressful time for patients and their families (Greenslade et al. 2010; Kovac 2014; Öbrink et al. 2015, Gonzales et al. 2010). Going in and out of the
hospital on the same day is of paramount importance to the patients as they desire minimal disruption to their lives and want to maintain control over their routines (Mottram 2011a).

Anxiety and stress greatly affect the patient's ability to fully understand the information given during this life-altering experience. Therefore, adequate preparation, including the actual timing of the surgery, greatly reduces anxiety and prepares patients for the responsibility of self-care. Preparation, support, timing and community health nursing interventions are of primary importance for effective recovery and coping in day surgery. (Greenslade et al. 2010; Kovac 2014; Öbrink et al. 2015, Gonzales et al. 2010; McCloy, & McCutcheon 2016.)

The type of surgery, insufficient access to health care providers/information and incorrect treatment are the patients’ perceptions of the causes of their persistent discomfort following day surgery. Suboptimal treatment and insufficient access to healthcare leaves them to care for themselves. Patients with extended discomfort at three months or more after surgery generally experience its respective effects on daily life even earlier in the recovery period. (Caldinhas, & Ferrinho 2013; Rosen et al. 2010; Kovac 2014; Öbrink et al. 2015.) Given that so many of the patients are primary caregivers of others, they typically have no one to help them, hence their inability to perform usual caretaking responsibilities results in further distress (Flanagan et al. 2009; Gonzales et al. 2010). Patients with paid jobs seem to experience a lower quality of recovery compared to patients without due to their desire for longer sick leave and therefore describe their recovery as less optimal (Stessel et al. 2015).

6.3 Healthcare system aspect in day surgery

Time and waiting

Time flow and waiting for the procedure are important factors in continuity of care in day surgery (Renholm et al. 2009; Renholm et al. 2017). Starting from the whole
planning of care up to the follow up monitoring, the aspect of timing is considered successful when patients go through all procedures and stages at once and with little waiting period (Renholm et al. 2009; Renholm et al. 2014). Getting home as soon as it is approved eligible is the advantage of the day surgery services in the modern world (Renholm et al. 2009; Mottram 2011a).

Time flow can be divided into pre, intra and post stages and be studied separately. It is yet important to highlight the aspect of treating patients within the expected period, which certainly calls for more pressure on resources. (Renholm et al. 2009; Greenslade et al. 2010; Caldinhas & Ferrinho 2013.) Nevertheless, every stage is to be planned accurately and on time regarding the procedures it contains (Greenslade et al. 2010; Renholm et al. 2014). Patients may underestimate the significance and seriousness of the operation (Mottram 2011a). Hence, implication on the health-care team are to be done (Mottram 2011a).

In its understanding, definition of time and time flow in day surgery can be perceived from two sides. First one illustrates the advantages of the “fast” surgery and the second highlights its disadvantages (Mottram 2011a; Renholm et al. 2014).

For the western type of society days surgery appears as efficient and rational choice. Patients are ready for the time limits in day surgery, agreeing for constraints in return to control over care. Speed is welcomed and there are no objections over the dehumanization treatment and of the “Mcdonalds type conveyer belt” approach. Factor of little time spent in hospital, associates with less chances in developing the hospital acquired infection. (Mottram 2011a.)

However, negative experience has been reported by the patients when the waiting for the surgery takes longer than expected (Renholm et al. 2009; Renholm et al. 2014; Renholm et al. 2017; McCloy, & McCutcheon 2016; Mottram 2011a). Review suggests, that long waiting time increases the anxiety prior to procedure (McCloy, & McCutcheon 2016). Patients highlight the complications of access to the health-care system due to the waiting before and after the surgery (McCloy, & McCutcheon 2016; Mottram 2011a; Rosen et al. 2010; Renholm et al. 2017). Continuity of care is not effective when there are struggles with time reservation to the health centers
after discharge (Renholm et al. 2009; Greenslade et al. 2010; Renholm et al. 2017). Geographical location, holidays and type of surgery (urgent or not) are some of the factors that may slow it down, lowering alongside the quality of outcome from day surgery (Greenslade et al. 2010; Caldinhas, & Ferrinho 2013). Insufficient access to healthcare results in an extended period of recovery, stress, anxiety and failure in treatment (McCloy & McCutcheon 2016; Greenslade et al. 2010; Rosen et al. 2010).

Upkeeping to the time frame with regards to the urgency of the case improves patients positive experience from day surgery (Renholm et al. 2009; Renholm et al. 2014; Mottram 2011a). The experience of recovery period is dependent on the appropriate time flow and contact to the health-care system (McCloy, & McCutcheon 2016; Greenslade et al. 2010; Renholm et al. 2014; Renholm et al. 2017; Flanagan 2009; Caldinhas, & Ferrinho 2013; Rosen et al. 2010).

**Nursing interventions**

Day surgery brings disruption in the lives of patients and calls for an increased need of nursing intervention before and after surgical procedures to promote optimal recovery (Flanagan et al. 2009; Kovac 2014). A preoperative assessment is very important for day surgery patients to ensure their social and psychological readiness and facilitate their experiences towards recovery (Richardson-Tench et al. 2013).

It is the responsibility of nurses to make proper assessment and care of the patient to facilitate their experiences towards recovery. A nurse-led preoperative assessment appears to have a remarkable positive impact on surgical patients as they receive more information, a patient-centered care and feel well prepared for admission. (Renholm et al. 2014; Gonzales et al. 2010; Liebner 2015.) The face-to-face discussion with patients allows the nurse to observe patients’ body language and assess their understanding of preoperative and postoperative preparation and instructions (Richardson-Tench et al. 2013). Patients are also able to make proper clarifications of their worries concerning the surgery hence gain proper understanding of the process.
required for appropriate preparation for the procedure (Richardson-Tench et al. 2013; Liebner 2015).

It is the belief of many patients that day surgery is the same as minor surgery and thus underestimate the level of discomfort experienced during the first 24-48 hours (Renholm et al. 2009). Despite undergoing preoperative teaching by nurses and surgeons, patients are unprepared for the postoperative experience which indicates the importance of genuine teaching about expectations organized across disciplines (Flanagan et al. 2009; Rosen et al. 2010; Liebner 2015). Patients reported that their preoperative nurses either provided information that conflicts the surgeon’s or reinforced the surgeon's teachings. In addition, they commented that the healthcare members who minimized the information did so to decrease the patients’ postoperative anxiety. (Flanagan et al. 2009; Liebner 2015.) Many patients were convinced that their surgery had not been properly performed and/or had unsatisfactory experiences with health care professionals (Rosen et al. 2010).

Patients’ knowledge of the healthcare team members involved in their care improves their perception of coordination flow (Renholm et al. 2014). In certain ambulatory surgeries, patients who reported positive experiences had sufficient community health nursing intervention, adequate preparation, strong support system and appropriate preparation timing (Greenslade et al. 2010). The caring relationship flow was felt better due to the provision of preoperative meeting with the health care team members prior to the procedure (Renholm et al. 2014; Liebner 2015).

Findings suggests that nurses and surgeons should be cautious not to minimize surgical experiences to ease patients’ anxiety. Nurses should encourage patients to seek the assistance of other people if need be. However, it is important to assess the willingness and capability of the person assisting in a coaching intervention on postoperative care. A proper implementation of assessment of preoperative care improves patients’ perception of continuity of care. (Flanagan et al. 2009; Gonzales et al. 2010; Liebner 2015.)
Education and access to information provision

Perioperative patient education provides patients with information about their surgery, which can help them feel better about the impending event. Previous studies have revealed that preoperative education has positive impact on patient's post-operative knowledge levels. This motivates self-care and corrects existing misunderstanding, improving their overall satisfaction in their surgical experience. (Mottram 2011a; Flanagan 2009.)

Many patients found information provided for day surgery inadequate and requested for more information and clarification on the type of surgical procedure, pain management, and anesthesia that would be used. Patients desire those that provide information to be more compassionate and caring to explain the information slowly and carefully. Structured information on pain management, exercise, and analgesics were shown to positively impact on pain levels and increase patience and confidence in their ability to care for themselves after discharge. (Liebner 2015; Flanagan 2009; Renholm et al.2009; Rosen et al. 2010; Greenslade et al. 2010). Mottram 2011a; Richardson, & Brown 2013.)

Lack of information and clarification on the procedure can negatively affect the anxiety levels. Studies emphasize that patients who are well informed and have detailed information before surgery have lower anxiety levels pre and post-surgery thus a faster recovery. (Liebner 2015; McCloy, & McCutcheon 2016.) Information should be provided at the preadmission stage where there is less time pressure than at admission, allowing a more relaxed discussion of the procedure and its associated risks. All verbal information should be reinforced in writing so that the patients and their families can refer to it later. (Liebner 2015; Renholm et al. 2009.)

Nurses have different tactics to teach and deliver the approved verbal and written education material on personal preference without regards to the patient’s individual needs. This variation can create inconsistency and confusion due to inadequate information before surgery and during discharge. (Flanagan et al. 2009; Gonzales et al. 2010.) Studies have shown that some patients who received oral
information expressed frustration that they could not remember everything that they had been told right before the procedure and suggested written information would have been more resourceful and helpful (Gonzales et al. 2010). However, another study shows that patients perceived the oral information they received as very positive because it was a face-to-face meeting and they could ask questions (Liebner 2015; Mottram 2011a). Findings have also suggested that watching informative videos before surgery are effective in improving patient tolerance, comfort and patient satisfaction and reduces patient anxiety (Gonzales et al. 2010).

Due to long surgery queues and lack of enough staffing of nurses, time limitations, language barriers and availability of teaching aids are barriers to providing education. The ideal method of delivering this perioperative education and information is unknown. Written information has been used as an effective way for delivering information to patients but not all patients are literate enough to read and understand an information sheet; in addition, patients will retain information to a variable extent. (Liebner 2015; Gonzales et al. 2010.)

7 Discussion

7.1 Ethical considerations, validity and reliability

Definition of ethics and their consideration in different disciplines varies according to the field of work (Resnik 2011). Nevertheless, in most cases ethical rules are known as a norm for conduction in the separation of acceptable and right behavior from nonacceptable and wrong (ibid., 2011).

Ethical norms in research conduction aim at honesty, objectivity, carefulness, openness and legality. According to the ethical consideration in literature review, any forms of falsification, misinterpretation and fabrication of data are prohibited in order to promote and reach aims of trustworthiness, avoidance and elimination of
mistakes/errors and gaining of knowledge (Resnik 2011; Finnish advisory board on research integrity 2012). Therefore, in order to meet ethically acceptable and reliable research results in current work, assessment, interpretation and application of various ethical rules have been responsibly conducted by the authors (Finnish advisory board on research integrity 2012; Taherdoost 2016; Mohajan 2017).

In the process of research conduction, based on the methodology of literature review, where the existing materials were used, conflict of the need of correct definition of the data analysis arouse. Due to the vast variety of information available both content and thematic aspects of analysis were used in gathering materials. However, for the objectivity and reliability purposes (Resnik 2011), discussion and criticism were done within the authors group first, and mentoring teacher asked later for the objective remark.

Retaining data and sharing access to the collected results were granted for the colleagues, at the beginning stage, and mentoring teacher at every stage for the constructive feedback gathering, in order to improve the publication of the research work, and making the results of the research easy and understandable for the mass readers by the end.

Following the research reporting instructions provided by the university, writers practiced elimination of the plagiarism, fabrication and falsification (Anderson 2009). Authors conducted the search and credibility of each found data separately and together in order to give an honest opinion, avoid bias and agree on exclusion of the ones which had not strong evidence-based background. However, unintentional biases may appear, as the work has been done with certain limitation to the literature materials and being performed by three unexperienced in the field authors.

During the review of the existing materials the question of ethical issue in addressing patients with questionnaires during the postoperative recovery period arouse. Authors debated of it being ethically eligible from the perspective of the researchers to bother patients, who have recently undergone surgery and were on the recovery stage. Also, having phycological factor (stress from recent surgery) influencing
patients reporting, question of consideration of the results obtained being reliable or if they were overrated due to the possible postoperative discomfort experienced at the time arise. (Eldh et al. 2006; Gelling 2016.)

However, this did not present the challenge, as it has been reported in the articles of volunteered participation in the research, which was done in full collaboration with the hospitals (Eldh et al. 2006; Gelling 2016). In case of approaching participants in postoperative stage it was done either in paper form, being sent home, or phone calls conducted with the health-care professionals having the follow up check at the same time (Eldh et al. 2006; Gelling 2016). The question of reliability of results was also checked by the authors (Taherdoost 2016). And following the pattern of stability in similar and repeated results highlighted by different research methods, results reported with the questionnaires as a research method tool were considered reliable (Taherdoost 2016; Mohajan 2017). These conclusions lead for the current work being reliable and valid in its reviewed articles.

Literature reviewed in the current work comes from: Belgium, Netherlands, Finland, Sweden, Canada, Australia, UK and USA researches, including the collaboration of several countries with the global materials on the subject. These variety in geographical coverage strengthens the validity of the review and shows that the subject was studied by the authors from the different perspectives.

7.2 Discussion of the results

The aim of this literature review research work was in understanding the experiences of patients in day surgery in order to find ways of improving the outcome in patients’ day surgery care to affect the quality of treatment provided by health care professionals.

The purpose of this literature review was, that nurses may use this knowledge of the patients reported views on day surgery. Through the thorough analysis made on the fifteen main articles of choice, authors of current review have raised the themes of
the utmost importance, which characterize and define the overall outcome from day surgical procedure (Appendix 1). As evident in current work, patients' experiences in day surgery can be influenced by physical aspects such as pain and post-operative nausea and vomiting, psychological aspects such as anxiety and discomfort, as well the health care related factor, defined by timing, education and information provision alongside with healthcare professionals interventions (Tharakan, & Faber 2014; Berg et al. 2012 Nilsson et al. 2018; Schug, & Chandrasena 2015).

Pain and pain management have been used as a successful prediction and an essential tool for effectiveness of day surgery. There are many factors that influence and affect the quality and outcome of pain such as type of surgery, age and previous experience in surgery. Acute pain levels were screened at patients with no previous experience and insufficient preoperative information and education. It is also interesting to note that previous studies show that this is quite similar for both inpatient and outpatient regardless of the duration of stay in hospital (Tharakan, & Faber 2014; Schmocker et al. 2015).

The findings obtained in this review show that preoperative education on pain management and analgesics administered without patient demand are effective in controlling the level of pain (Bailey 2010). Preoperative education gives patients relevant information on pain, analgesics and exercises which increases the knowledge on expected discomfort as well as increases confidence on self-care after discharge (Meissner et al. 2015).

Duration of pain following the day surgery varies significantly and depends on the individuals (Tharakan et al. 2014; Nilsson et al. 2018). Even with an attempt of tracking the pain complication from the first 24 hours up to the three-month time, researchers of the subject remain unsure of the complete elimination of the pain experience following day surgery (Schug, & Chandrasena 2015; Aubrun et al. 2018). As a result, occurrence and continuity of the pain extends the recovery period and lowers patient's satisfaction (Tharakan, & Faber 2014; Meissner et al. 2015).

Another issue raised within physical experience of patients following day surgery was the onset of postoperative nausea and vomiting (PONV) at least at one-third of
surgical patients (Pierre, & Whelan 2012). Based on the results gained within review of literature, PONV is one of the most feared side effects of surgery above pain. Patients who reported poor outcome associated with day surgery expressed that they were not prepared to deal with varying types of discomfort when they were already so vulnerable, having a lot of responsibility in their own recovery. Due to the lack of the medical monitoring in the postoperative period, patients were unable to detect possible complications in the early stage, hence they were at greater risk of having PONV (Pierre, & Whelan 2012; Van der Worp et al. 2014). However, similar to conclusions of Pierre et al. (2012), results from current review highlight that timely interventions taken at decreasing the risk factors of occurrence of PONV in a way of multimodal antiemetic prophylactics resulted in improved and satisfied experience from day surgical patients (Tharakan, & Faber 2014; Pierre, & Whelan 2012; Jakobsson 2014).

Day surgical patients are satisfied with the concept of “fast procedure”, with an opportunity to return to their daily life, with full control of the time factor. However, they express complaints of the long waiting lists for the day surgical procedures (Svensson et al. 2016). The results obtained from this literature review show that time and waiting is an important factor in continuity of care and patient’s satisfaction in day surgery. Review suggests of patients being ready to deal with the constraints and hardships of “speed” surgery if it all goes with little inpatient stay in hospital. In addition to that, patients desired to be able to have access to the health-care support and guidance when needed despite the geographical location, holidays and type of surgery.

Anxiety tends to impact the perioperative process negatively and is more common among the first-time patients than patients who have had prior surgical experience (Svensson et al. 2016). Patients reported that type of surgery, age and previous experience in surgery, as well as work status, social and psychological situation on the time of the day surgery influence and affect the quality and outcome. Being familiar with the steps of the procedure and possible outcomes, patients are not as anxious as when undergoing the surgery for the first time. Also, having strong support system in both social and health-care field, creates the feeling of security.
and facilitates sooner return to daily activities (Tharakan, & Faber 2014; Nilsson et al. 2018; Schug, & Chandrasena 2015; Aubrun et al. 2018; Jakobsson 2014).

Preoperative anxiety was found to be higher in comparison to postoperative anxiety as patients are unsure of what they will undergo and the aftereffects. Patients generally want the lowest minimum form of disruption to their lives thus perceiving day surgery to be a very quick process that gives room for one to resume life routine in no time. Their curiosity to know the kind of discomfort they may experience and how fast they can recover tends to raise their preoperative anxiety level and affect their understanding of the process.

An important result worth highlighting from this review is the nursing intervention in the perioperative process. A well implemented perioperative nursing intervention improves patients’ day surgery experiences and reduce anxiety (Svensson et al. 2016; Tharakan, & Faber 2014; Alcadag et al. 2018). Adequate community health nursing follow-up and the reassurance of the availability of a healthcare provider after discharge in the event of questions or concerns is important for quality outcome of day surgery.

Effective and clear patient education seeks to improve patient knowledge and operational capacity related to illness and surgery, optimize patient recovery, remove hospital stays for patients, improve satisfaction with health care, reduce the risks associated with surgery and help to reduce the pressures on societal health service (O’Donnell, 2018). Similarly, type of surgery, pain and anesthesia are the most needed education during the pre-surgery period. Patients who undergo day surgery with inadequate information from healthcare personnel experience anxiety before and after surgery. Current literature review shows that patients who are educated on the type of surgery, anesthesia, benefits and risks of surgery, pain and discomfort, have a better experience and outcome after surgery (Alacadag et al. 2018). Current trends in patient education include providing early and frequent education sessions. These sessions may include verbal and/or written instructions. Like previous research, no one method of delivering education has been shown to be more effective in achieving positive outcomes (Asilioglu et al. 2014).
7.3 Conclusion

Day surgery will be an integral component of health care in the future as it is becoming the default option for many surgical procedures. Through day surgery, more patients can be treated effectively and efficiently which is a big advantage to the healthcare system and the community at large. In order to maintain a high quality of patient care and utilization of sparse resources in healthcare services, day surgery should aim to ensure a patient centered approach that is balanced in the application of nursing practices and achievable interventions by focusing more on the total patient experience and not solely on the brief time spent in the acute setting. There has been a lot of subjective research which considers the experiences of the patients from a subjective and client-oriented perspective. In order to have opportunities for continued improvement in the future of modern surgery, contemporary nursing is vital and therefore further review and data collection for further studies should explore the continued patient and nurse contact during recovery at home with limited access to healthcare professionals, nurse-led support services and challenges of inadequate information during the first few days after discharge.
8 References


Elo, S., Kääriäinen, M., Kanste, O., Pölkki, T., Utriainen, K., & Kyngäs, H. 2014. *Qualitative content analysis: A focus on trustworthiness*. SAGE open, 4(1).


Mottram, A. 2011c. ‘They are marvellous with you whilst you are in, but the aftercare is rubbish’: a grounded theory study of patients’ and their carers’ experiences after discharge following day surgery. Journal of clinical nursing, 20(21-22), 3143-3151.


Quemby, D., & Stocler, M. 2014. Day surgery development and practice: key factors for a successful pathway. BJA, 14, 256–261


Resnik, D. B. 2011. What is ethics in research & why is it important. National Institute of Environmental Health Sciences, 1(10), 49-70.


occurrence, with focus on ambulatory surgery. International Journal of Surgery, 15, 100-10
## 9 Appendices

Appendix 1. Description of the selected articles

<table>
<thead>
<tr>
<th>Authors, year, country</th>
<th>Title</th>
<th>Purpose</th>
<th>Study size</th>
<th>Main finding</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brenner, P., &amp; Kautz, D. D. 2015. USA</td>
<td>Postoperative Care of Patients Undergoing Same-Day Laparoscopic Cholecystectomy</td>
<td>To provide the learner with knowledge specific to caring for patients undergoing same-day laparoscopic cholecystectomy.</td>
<td>Literature review</td>
<td>Authors concluded, that knowledge of the implications of the procedure, clinical manifestations of complications, and risk factors are essential for the provision of postoperative care by nurses. Prevention of the postoperative complication can improve patients’ experience.</td>
</tr>
<tr>
<td>Flanagan, J. 2009. USA</td>
<td>Postoperative telephone calls: timing is everything.</td>
<td>To examine the best time for telephone follow-up by a nurse in the patients’ recovery process.</td>
<td>77 participants, open-ended interview by telephone at 12, 24, and 72 hours postoperatively.</td>
<td>At various chronological stages patients are having different experiences of day surgery. However, in most cases they tend to worsen on the following 24h after the day of surgery. Timely recognition of complications and assistance required can ease the burden of caretaking responsibilities.</td>
</tr>
<tr>
<td>Author(s)</td>
<td>Title</td>
<td>Objective</td>
<td>Methodology</td>
<td>Findings</td>
</tr>
<tr>
<td>--------------------------------------------------------------------------</td>
<td>----------------------------------------------------------------------</td>
<td>-----------------------------------------------------------------------------------------------------</td>
<td>------------------------------------------------------------------------------------------</td>
<td>----------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Gonzales, E. A., Ledesma, R. J., McAllister, D. J., Perry, S. M., Dyer, C. A., &amp; Maye, J. P. 2010.</td>
<td>Effects of guided imagery on postoperative outcomes in patients undergoing same-day surgical procedures: a randomized, single-blind study</td>
<td>To evaluate the effects of guided imagery on postoperative outcomes in patients undergoing same-day surgical procedures.</td>
<td>44 participants, single-blind investigation.</td>
<td>Guided imagery appears to show promise in the areas of decreased preoperative anxiety, length of stay in PACU, and postoperative pain of day surgery</td>
</tr>
<tr>
<td>Greenslade, M.V., Elliott, B., &amp; Mandville-Anstey, S.A. 2010. Canada</td>
<td>Same-day breast cancer surgery: a qualitative study of women's lived experiences</td>
<td>To understand the experiences of women having same-day breast cancer surgery and make recommendations to assist healthcare professionals effect change to enhance quality of care</td>
<td>13 women, who had undergone same day breast cancer surgery interviewed</td>
<td>Adequate preparation and nursing intervention, alongside with appropriate timing and strong support systems significantly influence on the positive outcome of days surgery experience for patients.</td>
</tr>
<tr>
<td>-----------------------</td>
<td>-------------------------------------------------------------------------------------------------</td>
<td>---------------------------------------------------------------</td>
<td>---------------------------------------------------------------------------------</td>
<td>---------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Liebner, L. T. 2015.</td>
<td>I can’t read that! Improving perioperative literacy for ambulatory surgical patients.</td>
<td>To analyze the health literacy level of preoperative and post-operative ambulatory surgical patient education materials. To develop patient-centered, evidence-based materials to facilitate learning and improve patient outcomes To create a web-based intervention that patients can easily access</td>
<td>Literature Review</td>
<td>Easy to understand and presented in all learning styles patient education provided throughout the perioperative process is needed in the ambulatory surgery setting.</td>
</tr>
</tbody>
</table>
throughout the preoperative and postoperative process, beginning in the preoperative period

<table>
<thead>
<tr>
<th>Authors</th>
<th>Title</th>
<th>Objectives</th>
<th>Methodology</th>
<th>Summary</th>
</tr>
</thead>
<tbody>
<tr>
<td>McCloy, O., &amp; McCutcheon, K. 2016. UK</td>
<td>The day surgery experience from the perspective of service users</td>
<td>To inform local decision-making, changes to care delivery and improvements in day surgery patient care</td>
<td>An evaluative questionnaire</td>
<td>Results of the current study highlight importance of the preoperative assessment in day surgical settings. Education provision, pain management and waiting time are factors affecting the positive outcome of the day surgery.</td>
</tr>
<tr>
<td>Mottram, A. 2011a. UK</td>
<td>“Like a trip to McDonalds”: a grounded theory study of patient experiences of day surgery.</td>
<td>To help nurses understand all aspects of the patient experience in day surgery</td>
<td>Qualitative study with the grounded theory approach</td>
<td>Speed, control and predictability were emphasized as positive factors in day surgery procedure, being linked to McDonald’s experience.</td>
</tr>
<tr>
<td>Öbrink, E., Jildenstål, P., Oddby, E., &amp; Jakobsson, J.</td>
<td>Post-operative nausea and vomiting: update on predicting the risk factors and ways to tailor the individual patient</td>
<td>To identify risk factors and ways to tailor the individual patient</td>
<td>Literature review</td>
<td>The review of studies highlights that complete elimination of the PONV side effects is not possible. However, risk assessment and</td>
</tr>
<tr>
<td>G.2015. Sweden</td>
<td>probability and ways to minimize its occurrence, with focus on ambulatory surgery</td>
<td>prevention/therapy are warranted.</td>
<td>risk based multi-modal PONV prophylaxis are recommended by guidelines.</td>
<td></td>
</tr>
<tr>
<td>---------------</td>
<td>---------------------------------------------------------------------------------</td>
<td>---------------------------------</td>
<td>---------------------------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td>Renholm, M., Suominen, T., Turtiainen, A. M., &amp; Leino-Kilpi, H. 2009. Finland</td>
<td>Continuity of care in ambulatory surgery critical pathways: the patients' perceptions</td>
<td>To describe ambulatory surgical patients’ perceptions of important factors and their implementation indifferent phases of the critical pathway</td>
<td>Information provision, caring relationships, time and coordination flow were identified as important factors in day surgery care.</td>
<td></td>
</tr>
<tr>
<td>Renholm, M., Suominen, T., Turtiainen, A. M., Puukka, P., &amp; Leino-Kilpi, H. 2014. Finland</td>
<td>Continuity of care in day surgical care–perspective of patients.</td>
<td>To describe, from the day surgery patients’ own perspective, how continuity of care was realized at different phases of the treatment, prior to the day of surgery, on the day of surgery and after it</td>
<td>Patient's perception of the continuation of the care improves with the familiarization with the carrying staff prior and after the day of the surgery.</td>
<td></td>
</tr>
<tr>
<td>Renholm, M., Suominen, T., Puukka, P., &amp; Leino-Kilpi, H., 2017. Finland</td>
<td>Nurses' Perceptions of Patient Care Continuity in Day Surgery</td>
<td>To analyze nurses' perceptions of the realization of continuity of care in day surgery</td>
<td>120 eligible nurses participated in a questionnaire</td>
<td>Nurses report of sufficient realization of continuation care in day surgery settings on the day of surgery and outline its lack in pre and post stages.</td>
</tr>
<tr>
<td>--------------------</td>
<td>------------------------------------------------</td>
<td>-------------------------------------------------</td>
<td>-------------------------------------------------</td>
<td>----------------------------------------------------------</td>
</tr>
<tr>
<td>Richardson, M., &amp; Brown, S. 2013. Australia</td>
<td>Before and after same-day surgery: Are we responding to anxious patients’ needs?</td>
<td>To review current issues concerning best practices in day surgery</td>
<td>An observational study</td>
<td>No discernible difference has been concluded between telephone screening and hospital assessment interventions and levels of anxiety experienced by patients.</td>
</tr>
<tr>
<td>Rosén, H. I., Bergh, I. H., Lundman, B. M., &amp; Mårtensson, L. B. 2010.</td>
<td>Patients' experiences and perceived causes of persisting discomfort following day surgery.</td>
<td>To describe patients' experiences and perceived causes of persisting discomfort following day surgery</td>
<td>Quantitative study of a total of 298 day surgery patients.</td>
<td>The results have important implications for preventing and managing discomfort at home following day surgery, and for nursing interventions to help patients handle the recovery period better.</td>
</tr>
<tr>
<td>Stessel, B., Fiddelers, A. A., Joosten, E. A., Hoofwijk, D. M.,</td>
<td>Prevalence and Predictors of Quality of</td>
<td>To analyze prevalence and predictors of QOR after day surgery on</td>
<td>2500 patients, prospective cohort study</td>
<td>Results of the current study illustrate, that procedure specific variation affects the quality outcome result(QOR) in day surgery.</td>
</tr>
<tr>
<td>Gramke, H. F., &amp; Buhre, W. F. 2015. Belgium. Netherlands</td>
<td>Recovery at Home After Day Surgery</td>
<td>the fourth postoperative day, in a large adult population undergoing day surgery</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>