THE EXPERIENCE OF RECOVERY AT HOME FOLLOWING AMBULATORY SURGERY PROCEDURE: A SYSTEMATIC LITERATURE REVIEW

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ABSTRACT

Background: Patients’ recovery from surgery differs when they are in a hospital setting or at home. However, an often forgotten aspect of post-operative ambulatory care is the patients' recovery at home following ambulatory surgery.

Aim: To explore and describe the patients’ experiences of recovery at home following the ambulatory surgery procedure.

Method: A systematic review of 7 qualitative studies in English with pre-specified criteria was conducted. An overview of qualitative evidence derived from the 17 identified main themes across the 7 primary studies was analyzed.

Result: Seven thematic analysis themes were identified as being core to the patients’ experience during recovery process at home: physical symptoms, a period of regaining pre-operative functions, psychological effects, the surgical wound, delayed recovery process, social support, and the sick-role condition. These seven themes were described patient's experiences at home following ambulatory surgery from early stage of recovery to the time of getting back to normal life.

Conclusion: Recovery at home following ambulatory surgery seemed to be challenging, a quality self-care at home was lacking in the form having full control and knowledge about symptoms; adequate information, education and medication during self-care management; sufficient support by carer and nurses; and enough time-off for recovery.

Keywords
Ambulatory surgery; caring science; experience; patient perspective; recovery at home; systematic review; qualitative study.
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1 INTRODUCTION

An often forgotten aspect of postoperative ambulatory care is the time period of the patients’ recovery at home after discharge from ambulatory surgery. Thus, a patient may experience health problems at home. My interest in the patients’ recovery period after ambulatory surgery began when I worked as a home care nurse. I observed the unexpected problems and complications for the patients, including their suffering at home during their recovery period and their daily struggles. I, therefore, found it important to gain knowledge about the patients’ experiences during recovery at home.

This thesis focuses on ambulatory surgery patients’ post-operative recovery at home, which, hopefully, will help to predict, recognize and guide the patients’ need for help during their recovery at home. In addition, it also seems important to know how recovery at home can be managed in order to prevent suffering with the appropriate nursing interventions.

Ambulatory surgery is referred to with different terminologies in various literatures: day-surgery (Darwin, & Chung, 2013), day-case surgery (Ojo, 2010), outpatient surgery (Wu et al., 2002), short-stay (Moran, & Kent, 1995), ambulatory surgery (Costa, 2001) and day-care (Coley et al., 2002). In this thesis, the term ambulatory surgery is used.

2 BACKGROUND

The definition of ambulatory is strictly “the ability to walk”, but in the context of surgery it refers to the admission of carefully selected patients to the hospital for a planned, non-emergency surgical procedure whereby the patients are able to leave the hospital within hours of that surgery (<24 hours) (Toftgaard, & Parmentier, 2006). In addition, the ambulatory surgery patients are day-case patients who require full operating theatre facilities and/or a general anesthetic (Gandhimani & Jackson, 2006).

Due to sophisticated technologies and medical advances (Mitchell, 2000; Moran & Kent, 1995; Otte, 1996), anaesthetic techniques (Moran & Kent, 1995; Stephenson, 1990), cost effectiveness (Lemos et al., 2003; Roberts, 1996), and increased patient participation (Henderson & Zernike, 2001), ambulatory surgery has increased in many countries. It has become commonplace for nearly all elective surgical procedures. A recent survey showed a wide variation in the percentage of ambulatory surgery performed in 19 countries from less than 10% (Poland) to over 80% (United States, Canada, and Sweden) (Toftgaard & Parmentier, 2006), and it is also increasing in some developing countries (Ojo, 2010).

Ambulatory surgery is a safe and high-quality surgery because of its advances in surgical and anaesthetic techniques. It is also cost-effective with a high satisfaction rate for surgical healthcare facilities, patients, and third-party payers such as insurance companies (NHS Modernisation Agency, 2002). Furthermore, the benefits of ambulatory surgery can be seen as a reduction in surgical waiting lists, reduced medical costs, minimized costs of outside childcare, and the increased availability of inpatient hospital beds and resumption of normal living activities at an earlier time. Additionally, it reduces the risk of cross-infection due to a reduced hospitalization period, contact in the inpatient hospital setting and low incidence of major morbidity (NHS Modernisation Agency, 2002).
order to maintain economic efficiency and high-quality services, a patient requires full operating theatre facilities and the length of the ambulatory surgery should be less than four hours without complications (Gilmartin & Wright, 2007; Toftgaard & Parmentier, 2006).

Ambulatory surgery is highly dependent on the patient's self-preparation before ambulatory surgery (e.g., fasting) as well as self-care and recovery at home. Patients need to ensure that they have home-support during the first 24 hours, have the availability of adequate analgesic and are tending to the wound (Mitchell, 2003). According to Costa (2001), the inadequate pre-operative preparation of the patients and lack of information on the post-operative process were correlated to the patients’ experience of sudden fatigue and pain (Costa, 2001). Additionally, a study by Breemhaar & Borne (1991) discussed the positive effects on the surgical patients’ physical and psychological well-being during pre- and post-operations. The positive effects depended on the nurse's provision on education and support during the patients’ pre-operative period. Furthermore, education and support increased or maintained the patients' feelings of control (Breemhaar & Borne, 1991). A meta-analysis of 191 studies focusing on how psycho-educational interventions influence patients’ recovery revealed the positive effects of pre-operative education on the patients’ post-surgical pain, anxiety, psychological well-being, and satisfaction (Devine, 1992).

Ambulatory surgery “recovery” is an ongoing procedure that starts from the end of intra-operative care until the patient returns to her or his pre-operative physiological condition (Marshall & Chung, 1999). The clinical recovery period after ambulatory surgery has three phases: early recovery (awakening), intermediate recovery (home readiness and discharge from hospital), and late recovery (returning to her or his pre-operative physiological functions, such as driving or work) (Kortilla, 1988; Kortilla, 1990). However, before being discharged from the ambulatory surgery unit, the patients’ recovery should be evaluated by nurses using certain criteria for the effects of the surgery and anesthesia, which are shown in the Marshall & Chung (1997) study. The suggested necessary criteria by Marshall & Chung (1997) during the patients’ recovery in the hospital are the optimal control of vital signs (must be stable and consistent with age and the pre-operative baseline), activity level (the patient must be able to ambulate at the pre-operative level), nausea and vomiting (the patient should have minimal nausea and vomiting before discharge), pain (the patient should have minimal to no pain before discharge) and surgical bleeding (post-operative bleeding should be consistent with expected blood loss for the procedure), (Marshall & Chung 1997).

In summary, the focuses of ambulatory surgery research and ambulatory anaesthetic practices are to minimize the anaesthetic symptoms (e.g., vomiting and nausea) and to develop newer agents with a more favourable recovery profile in the post-anesthesia care unit (Aun, 1999; Glass & Gan, 1999; Peacock & Philip, 1999; Patel & Goa, 1995; Patel & Goa, 1996). In addition, a significant amount of research in this area has focused on the length of recovery room stay, cost-effectiveness of drugs, and minimizing of immediate post-operative symptoms after ambulatory surgery in order to facilitate the immediate patient discharge and the post-operative period (Hill et al., 2000; Philip, 1995; Carroll et al., 1994; Figueredo & Canosa, 1998). Furthermore, other focuses were on the nurses’ attitudes towards providing pre-operative education and obtaining information concerning the patients’ post-operative process with regards to their well-being and satisfaction (Breemhaar & Borne, 1991; Devine, 1992). However, there is a need for knowledge on the experience of being at home during the recovery period after
ambulatory surgery. This is an issue which has not been studied enough from the patient's perspective. Thus, it seems appropriate to study and systematically explore the patient's experience of recovery at home after ambulatory surgery to address the need of research among this patient group.

2.1 The previous systematic literature review

A review by Chan Thong et al. (2009) was conducted to guide the selection of the most appropriate questionnaire for the evaluation of patient satisfaction after ambulatory anesthesia. The selection of the most appropriate questionnaire included IOWA satisfaction with anesthesia scale and Evaluation du Vecu de l'Anesthesia Generale.

A review by Mitchell (1999a) explored the patients' experience of day surgery during the peri-operative stage and at home, which used mixed methods of both qualitative and quantitative literatures with measurable outcomes. This study explored the patients’ satisfaction level with day surgery, which showed four main themes: nursing practice, information provision, patients’ experiences with day surgery and recovery at home. Nursing practice explored the need for pre-assessment clinics to adequately help patients prepare for surgery, provide instructions related to care and recovery at home and increase nurse-patient contact time to help with allaying fears. The information provision theme was surrounded by a lack of information, relevant information and level of information required (how much the patient needs to know). The patients’ experiences with day surgery primarily explored their concern with waiting for admission, a lack of privacy, anxiety, and a preference for an overnight stay. The final theme, recovery at home, showed concerns related to pain management. It also showed that the carers required more information about the recovery length and the need for community health involvement. However, information provision and pain management at home were the greatest challenges among patients.

A systematic review based on qualitative literature by Rhodes et al. (2006) was conducted. It focused on the patients’ subjective experiences during the peri-operative period in ambulatory surgery and it explored the patients’ experiences of nursing interventions and care in the hospital setting rather than at home. This study explored and identified education and information, communication and privacy as major concerns among the patients’ experience of nursing interventions and this could lead to feelings of satisfaction.

Finally, a study by Wu et al. (2002) measured post-discharge symptoms after outpatient surgery. After reviewing 31 articles regarding the incidence of post-discharge symptoms in patients undergoing ambulatory surgery, Wu et al. (2002) obtained the following results: 45% for pain, 42% for drowsiness, 21% fatigue, 17% for nausea, 17% for headaches, 18% for dizziness, 9% for postdural puncture headaches (with an associated 27% incidence of backache), and 8% for vomiting. The incidence of these symptoms was affected by how and when the symptoms were assessed Wu et al. 2002).
3 THEORETICAL FRAMEWORK

To achieve this thesis’s overall purpose, a caring science perspective is used by investigating the patients’ experience of health conditions during recovery at home after ambulatory surgery.

The foundation of caring science is human science and its aim is a holistic view (Dahlberg & Segesten, 2010). The “core” of nursing is caring; it should be based on human care, and the caring goal should be to help man to achieve health and support in illness (Watson, 1988). However, health is a subjective experience, which does not relate to the absence of illness or disease. It relies on the patient’s well-being within the mind, soul and body and is related to the degree of understanding between the self as perceived and the self as experienced. Patients with increased self-awareness and coping ability are better prepared to deal with situations involving change, conflict and loss (Watson, 1988). Therefore, in order to be able to provide optimal care, it is important for nurses to focus and identify how the patients "experience their health, their suffering, their well-being or their world" (Dahlberg et al., 2003, p. 25). In addition, McClelland, Dahlberg & Plihal (2002) described how man experiences their body while learning. The experiences of university students’ learning showed that they were in the world bodily and not only as cognitive beings. The researcher described these experiences with sex themes as follow: the physical setting creates discomfort; the body senses emotional climate in the classroom; activity occupies of distracts the body; there is a lost sense of body when immersed in a good learning experience; bodily relaxation and freedom occur when one is learning; and bodily excitement accompanies learning (McClelland, et al., 2002). Ambulatory surgery patients’ experience of changed health conditions demands caring, which caring science denotes a holistic view of human caring.

4 DEFINITION OF RESEARCH PROBLEM

The previous systematic reviews have established the main research priorities: peri-operative ambulatory surgery with post discharge symptoms, including identification of gaps in health care services while experiencing peri-operative and post-discharge symptoms (Mitchell, 1999a; Chanthong et al., 2009; Rhodes et al., 2006; Wu et al., 2002). It was highlighted in this study that ambulatory surgery is a safe and high-quality surgery because of its advances in surgical and anaesthetic techniques (NHS Modernisation Agency, 2002). However, patients’ recovery from surgery differs between the hospital settings and at home. Hospitalized patients have full access to professional support but recovery at home relies on the patients to self-monitor, self-assess and self-evaluate for signs and symptoms (Kleinbeck, 2000). Thus, patient-care after discharge is important not only to prevent complications during recovery at home (McGrath et al., 2004; Wu et al., 2002), but also to be able to prevent and promote the “patients’ unexpected hospital readmission” (Gold et al., 1989; Korttila, 1995). However, the previous systematic reviews on ambulatory surgery patients have not focused on the patients’ experiences during recovery at home. Furthermore, despite the strengths of qualitative methods (e.g., the patient’s experience can be described in detail and in-depth), no systematic review on this specific topic was identified. Therefore, it is appropriate to systematically review this topic to explore and gain knowledge about the patients’ experiences during self-care at home.
In conclusion, a systematic review to portray the patients’ experience of recovery at home following ambulatory surgery procedures has, to my knowledge, not been performed before. Therefore, it is critical to gain knowledge about the patients’ sick-role conditions during recovery at home following ambulatory surgery while dealing with complications (McGrath et al., 2004; Wu et al., 2002) and hospital readmissions (Gold et al., 1989; Korttila, 1995). The purpose is to obtain more information on barriers and gaps during recovery at home and to understand how they deal during self-care post-operatively. Hence, more information is needed from the patient's perspective during recovery at home after ambulatory surgery for a home-recovery improvement. By researching this area, nurses and health providers may contribute to provide and attain an optimal, safe and high-quality care at home following ambulatory surgery. Furthermore, depending on the aim of this study, I chose a qualitative approach which is an attempt to address the gap in the literature by exploring the following research question: In what way is/are the experience(s) of recovery time at home among ambulatory surgery patients?

5 AIM

The aim of this study was to explore and describe the patients’ experiences of recovery at home following the ambulatory surgery procedure.

6 METHODS

It seems to be important to take the first step in the process in determining the form and kind of problem experienced during recovery at home after ambulatory surgery by doing a qualitative systematic review on the patients' experience during recovery at home after ambulatory surgery.

The reason for using only qualitative studies in this systematic review is because the qualitative studies use less structured research methods (e.g., participant observation, conversation style in-depth interviews, and semi-structured interviews) and are more appropriate to use when revealing/exploring the patients’ subjective experiences and understanding their illness, rather than quantitative methods (Johnson, Dunlap & Benoit 2010). Quantitative methods were therefore excluded.

6.1 Design

A systematic literature review on qualitative data was chosen due to the fact that it makes it possible to identify, appraise, select and synthesize a review of a maximum number of relevant primary (original) research studies. In addition a systematic review provides an integration of peer-reviewed research studies from different sources on the same subject and limited time. In order to develop a systematic review the following steps is going to be taken by Hemingway & Brereton (2009) as follow:

- Defining the research question. It defines a clear statement towards the aim of this review;
• Searching for relevant literature. For an unbiased assessment, searching will cover all kind of relevant publications;

• Assessing the studies. To identify all possible studies which will be assessed for eligibility with inclusion and exclusion criteria among each study. Thereafter, the identified studies will be assessed for methodological quality by using a critical appraisal framework. However, a list of included studies will be created in this stage for further assessment.

• Combining the results. In this stage the finding from each study will be integrated and synthesised. This systematic review inspects qualitative data. Therfore a meta-synthesis (e.g. thematic analysis) is conducted.

• Placing the findings in context. The findings from the selected studies will be discussed and analyzed with an university lecturer and thereafter it will be presented in the findings section. The quality of systematic review can be assessed by using a check list. However, in this systematic review the Critical Appraisal Skills Program (CASP) appraisal tool with 10 pre-formulated questions designed for qualitative research, is going to be used. CASP will enable to ensure a transparent and complete reporting (Hemingway & Brereton 2009).

6.2 Data collection
Prior to the start of this qualitative systematic review, the Cochrance Library's Methodology Register, Google Scholar, and Cumulative Index to Nursing and Allied Health Literature (CINAHL) databases were searched. No previous systematic review on this specific topic was identified. The systematic review of this study had its principle retained as the following order of data collection.

6.2.1 Inclusion criteria
• All qualitative studies that used face-to-face interview and a semi-structured or open-ended questioning approach to explore ambulatory surgery patients’ experiences of being at home during recovery.
• All primary published research articles dealing with adult patients, irrespective of gender, ethnicity and country of place.
• All journal papers published in English (excluding thesis, books, and book chapters) and peer-reviewed articles to ensure scientific quality.
• Qualitative studies which focus on the patients’ self-reported experience with the use of quotations to identify the patients’ subjective experience using their own words.
• All ambulatory surgery procedures that are not life-threatening, have no history of physical or mental health, and not urgent.

6.2.2 Search in relevant databases
The research started with identifying relevant health-related electronic databases in two steps:
1) By consultation with the Linnaeus University librarian for suggestions of relevant health-related databases; and
2) By scanning nursing literature reviews to identify the most commonly used electronic databases in the nursing field.

After identifying these electronic databases as mentioned below, the systematic review search was undertaken in another three stages:

1) Initial database search;
2) Manual search of the reference lists of journal papers identified in stage 1; and
3) Searching through book chapters and the Google Scholars database.

Four databases in different field were selected to provide a wide search: CINAHL (nursing), Medline (medicine), PsychINFO (psychology) and AMED (medicine). The searching was applied with eligibility criteria on CINAHL (blank - present), MEDLINE (blank - present), PsychINFO (blank - present), and AMED (blank - present). The last search was run on March 2013 and stopped there because of no more relevant articles were found. The entire systematic review study was conducted via a manual search.

6.2.3 Searching procedure
Formulated search terms that related to the aim of this study were applied to the four identified electronic databases. Prior to identifying search terms, an initial search of CINAHL Subject Heading, PsychINFO Thesaurus, and MEDLINE MeSH terms was undertaken to identify key words in the title, abstract and subject. To find qualitative research was difficult (Barroso et al., 2003) because the appropriate search terms in CINAHL and MEDLINE were combined with the exact Major Subject Heading (MM= “search for a word or phrase that exactly matches an existing subject heading that is a major topic of the work anywhere in the subject heading fields”), and exact Subject Heading (MH= ”search for a word or phrase that exactly matches an existing subject heading anywhere in the subject heading field”) were intentionally left broad in order to avoid missing important articles (Appendix 1).

6.2.4 Selection process
A detailed summarized search strategy showed in flow chart (Appendix 2). I identified and screened a total of 2,713 studies from the initial search of four databases and an additional two from Google scholars for possible inclusion in this systematic review. I recorded all relevant studies after reading titles, abstracts and removal of duplicated data (n=394). The process of screening and recording all relevant studies was time consuming and took four months (from March – June) for being able to go to the next level. The next step was to scan full-text articles which resulted in 394 studies to explore if these met the inclusion criteria. However 359 articles were excluded after selection according to the exclusion and inclusion criteria of this systematic review study. A total of 35 articles were identified for further assessment. These articles were a result from the search in CINAHL and MEDLINE, one from Google Scholars and one from the reference list of the research article. Zero new articles were found from PsychINFO and AMED. All 35 articles were with full-text with the exception of four, which I had to order. Each of the 35 articles was carefully read for eligibility and the result was that 23 were excluded because of not being considered eligible for one of the following reasons (Appendix 3): 16 articles had a measurable outcome on their result section; 4 studies showed experiences only during peri-operative following ambulatory surgery; 2 studies showed breast biopsy experiences
(such patients were deemed to possibly experience additional anxieties resulting from the waiting for the biopsy results at home); 1 study showed the pre-education effects during the recovery at home.

No studies were excluded due to the research quality at this point because a quality appraisal tool is to be used during the next step of processing data.

Finally, 12 qualitative studies were judged to be relevant and eligible to be retrieved for appraisal and analysis (Appendix 4).

6.2.5 Data collection process
All qualitative studies relevant to this thesis’s research question and aim were included. However, studies with open-ended questionnaires were also included because their findings were based on qualitative analytical methods. Paterson (2001) recommended an appraisal tool for analyzing and evaluating qualitative research.

In this study, the author (RM) used a Critical Appraisal Skills Program (CASP) appraisal tool with 10 pre-formulated questions designed for qualitative research, enabled to carefully evaluate the contents of each of the 12 included qualitative studies. This evaluation included the purpose of the study, the use of appropriate qualitative methodology, research design, recruitment strategy, data collection, the relationship between the researcher and the participants, ethical consideration, data analysis, findings, and how valuable the research study is (CASP, 2006). In addition, the CASP tool helped when examining research studies in order to judge its trustworthiness and its value and relevance to the context of this paper. The first two questions in CASP were screening questions which quickly showed whether or not the study was worth proceeding with the remaining questions (Appendix 5).

However, only three articles were excluded after the first two questions were processed, one from Google Scholar and two from MEDLINE because the two studies by Oberle, Allen, & Lynkowski (1994) and Kleinbeck & Hoffart (1994) did not include the patients’ subjective experiences of recovery at home following ambulatory surgery. Furthermore, the study by Donoghue, Pelletier, Duffield, & Tores (1996) was very short, compounded, and unclear regarding post-operative recovery at home.

After appraising each study with CASP’s ten-question tool, two additional studies were excluded: The first study was by McCloud et al. (2011) about eye surgery which aimed at understanding the individual’s experience of day surgery for the repair of vitreo-retinal pathology. The research analysis design was an interpretive design and focused on the patients’ life-world experience. This article was excluded because many of the participants in this study required urgent surgery due to an acute need to re-attach the retina. Therefore, it was not eligible according to this systematic review’s study criteria;

The second study was by Stevens et al. (2001) which was judged eligible at first but after using the CASP tool, I identified the theme related to the patients’ subjective experience at home was lacking clear evidence and explanations. Also, more than half of the findings were lacking quotations (Stevens et al., 2001).

Finally, 7 studies were included for further content analysis.
6.2.6 Data items
A data extraction assessment sheet was formulated and it contained a detailed bibliography of each of the 7 included studies as follows: Author, year published, country of study, title, source (publication name), type of ambulatory surgery (for type of operated patients), sample (for targeted study) and age range, purpose, qualitative research design, context of data collection (research question, place and length of data collection) and data analysis method. The data extraction form helped to start the development of all important information according to the aim of this study. The extract of all information helped during further analysis (Appendix 4).

6.2.7 Risk of bias in individual studies
The risk of bias was identified using the CASP tool in four studies as a possibility of being duplicated. Elm, Poglia, Walder, & Tramer (2004) indicated that duplicated publications may be difficult to discover and their inclusion may introduce biases. However, critical examination identified that two of the studies almost had the same researchers with one additional researcher added in the later version of the study. These two studies focused on the same aim but included different study subjects (laparoscopic fundoplication or laparoscopic cholecystectomy), in different time frames and with different participant groups (Barthelsson, Lutzen, Anderberg, Bringman, Nordstrom, 2003; Barthelsson, Lutzen, Anderberg, Nordstrom, 2002). These two studies are included for further analysis. These two studies were explicit in every section, except the data analysis in one study (Barthelsson, et al. 2002) which was explained in a short and consistent manner.

The other two studies were carried out by the same researcher and by using the same data material as well as the same method for data analysis. However, both studies focused on different aims: to explore patients’ experience of day surgery using a sociological framework of analysis (Mottram, A., 2010, p. 141) and to explore the discharge experiences of patients undergoing day surgery using the grounded theory approach (Mottram, A., 2011, p.3145).

Furthermore, a data collection biases was also identified in study by Mottram (2010). The researcher indicated two different dates on data collections, under the methodology section (p.141) the researcher claimed that the data collection occurred from 2004-2006, however, under participants section (p. 142), it said the interviews took over 2 years period. In addition, the researcher did not identify the length of each interview or the time average for the interviews, among 245 (145 patients and 100 carers) participants. Furthermore, it must be asked how, as a sole researcher, did she manage and plan her data collection process and selection? Also, the relationship between the researcher and the participants was not clear. Another bias discovered during the data analysis was as follows: the researcher claimed that “Analysis incorporated simultaneous data collection and analysis from interview transcripts field notes and memos. The act of interpreting the data was a very personal one” (p. 142) though the researcher never used field notes and memos in her findings of the study which had been collected two weeks before surgery. However, the researcher described each taken step during data analysis and showed an explicit statement of finding with sufficient data and quotations (Mottram, 2010), as I identified with CASP appraisal tools.

All four studies (Barthelsson et al., 2002; Barthelsson et al., 2003; Mottram, 2010; Mottram, 2011) were included because of the studies differed. Furthermore, a study by Rosen et al., (2010) with an open-ended questions questionnaire was identified, which
was included because its findings were based on qualitative analytical methods, and it was elaborated with the participants’ quotations in the finding’s section (Rosen, Bergh, Lundman, & Aresson, 2010).

6.2.8 Study selection and participants’ characteristics

The characteristics of each of the 7 included qualitative studies of the patients’ experience following ambulatory surgery during recovery at home are detailed in additional appendix 4. The following review of these characteristics is described as follow; The included studies were published between 2002 and 2011 and in Europe: one in Finland (Renholm, Suominen, Turtiainen & Leino-Kilpi, 2009); three in Sweden (Barthelsson et al., 2002; Barthelsson et al., 2003; Rosen, et al., 2010); and three in the United Kingdom (Gilmartin, 2007; Mottram, 2011; Mottram, 2010).

The characteristics of ambulatory surgery were as follows: Laparoscopic cholecystectomy (gallbladder surgery) and Hernia operations (Renholm et al., 2009); Laparoscopic Fundoplication (gastroesophageal reflux disease treatment through surgery) (Barthelsson et al., 2003); Gynaecology, urology and general urology (Gilmartin, 2005); General ear, nose, throat, orthopedics specialties (Mottram, 2010 & 2011); Laparoscopic cholecystectomy (key hole surgery) (Barthelsson et al., 2002); Ligation/resection of vena saphena magna (tying up or excision of longest foot vein), radical surgery inguinal hernia (removal of inguinal hernia), haemorrhoidectomy, arthroscopy (a type of endoscope that is inserted to a joint through a small incision) (Rosen, et al., 2010).

One study had focus on patients’ experiences from first visit to doctor (first symptom), diagnosis and waiting for schedule the surgery; pre-operative visit to day ambulatory surgery, day of surgery and home care (Renholm, 2009); Two studies focuses were during peri-operative and during recovery at home (Bartehelsson, et al., 2002; Barthelsson et al., 2003); One study focused on patients experience during discharge and recovery at home (Gilmartin, 2005). Three studies had their focus on patients experience during recovery at home (Mottram, 2010 & 2011; Rosen, et al., 2010) (Appendix 9).

Both genders participated in almost all of the studies. The gender was specified clearly in 7 studies. However, one researcher used same amount and group of participants (n=145) in two different type of studies. In one study researcher specified with a diagram the gender size and age groups but in the other study she only mentioned the size of participants (n=145) and over 18 years old (Mottram, 2010 & 2011). The youngest participants in those 7 studies were 18 years old and the oldest participant was 88 years old. The size of the participants differed from less than 10 participants in one study, between 10-30 participants in five studies and over 30 participants in the rest of the studies. Two studies interviewed both patients and carer (Mottram, 2010 & 2011). Finally, a summary of included studies were provided in appendix 9.

6.3 Data analysis

What has it been like to be at home during recovery following the ambulatory surgery? A single author (RM) undertook the study of 7 articles. Langemar (2008) suggested that the thematic analysis is a suitable method for an un-experienced researcher (Langemar, 2008), as well as a process to be used with all qualitative information and qualitative methods (Boyatzis, 1998). Thematic analysis also enables the ability to inductively explore and describe the meaning of the finding’s section of primary research articles in relation to the patients’ experience of recovery at home following ambulatory surgery.
The Prior-Research-Driven Approach by Boyatzis (1998) was used to identify, analyze, and report studies that were included (from the 7 primary qualitative studies) to a descriptive level. Furthermore, since this was an exploratory design that didn’t intend to fit in with any specific theories but instead aimed at exploring the participants’ experiences, an inductive approach (which doesn’t rely on a predetermined pattern to frame the analysis) along with an open-coding approach was applied to identify themes following 5/6 steps, as outlined by Boyatzis (1998) (Appendix 6). With the intent of describing findings of integrated themes, the last step was excluded (because the last step was an interpretation of the results).

The findings from the 7 primary research studies were used; that retained information related to the patients’ experience of recovery at home following ambulatory surgery. I read the findings of the primary research several times in order to get familiar with the data/content of the previous research findings section. Another reason was to avoid the risk of bias, because some of the articles presented different types of experiences in relation to the ambulatory surgery (e.g., during the peri-operative period and recovery at home). This is explained more in the method’s section of this study. At this point of the systematic review, 17 themes were identified (Table 1) among those 7 articles. Thereafter, all of the integrated themes from the primary research were copied (either typed or copy-pasted) and numbered in its original form. These were copied to a data file as to show the rigorous procedure of analysis.

6.3.1 Generating a code from previous research
The next step was to highlight the text that described the patients’ experiences. My focus was only on the patient’s subjective experience (not their carer’s experience) and only during their recovery at home from the ambulatory surgery (not pre-post-intra or during discharge). I repeatedly read all of the material several times and focused on the highlighted data to ensure that it is valid and proper with the appearance of the participants’ own experiences. Furthermore, being aware and open to the pre-understanding of the patients’ own experience during recovery at home, the author (RM) was questioning, with an open attitude, the essence of the “recovery at home” throughout the whole text material. Finally, 17 themes (n=7 articles) were left for further thematic analysis (Appendix 7).

Open-coding started with article number 1’s and 2’s collected data (themes from prior research findings) inductively (without paying attention to pre-existing coding frame, selected themes from primary researchers, or preconceived result) and subjectively (which identified subjective’ experiences), in a meaningful sentence or a data extract intentionally close to the original text. To make sure that the open-coding was accurate, I began the same procedure as mentioned above on the same two articles once more after one week. Then I compared my new codes as to the first processed one and noticed some minor differences in my coding process. However, to avoid the discrepancy of open-coding each article I was repeatedly re-examined to ensure that the similarities, differences, and consistencies between the codes were captured close to original data inductively.

6.3.2 Reviewing and rewriting the code for applicability to the raw information
I opened a new data file and moved all of the captured and examined codes from file one to file two along with the quotations. I compared the different codes with the primary text
to determine the reliability of the coding. Thereafter, I color-coded them and combined them with each other when the content was related to each other in order to start grouping them in accordance to differences and similarities. My focus was to capture and integrate the nature of the patients’ own experiences during their recovery time at home after the ambulatory surgery, as close as possible to the findings in the articles. However, existing codes were integrated and refined and new codes were developed close to the primary data.

6.3.3 Determining the reliability

In this step I received help from a university lecturer to determine the reliability of the new developed codes. Several themes were discussed with my supervisor and one theme needed to be reconstructed. This theme was about the patients’ experience of going back to the hospital after ambulatory surgery. I started to reconstruct the theme by going back to step 2 as described above.

6.3.4 Applying the code to the primary information

I applied the generated themes to the remaining raw information. I checked and rechecked all of the themes to the data quotations and the data extracts for the purpose of describing the similarities and differences of the patients’ experiences during their recovery at home. Thereafter, the analysis of the themes with the same essence in relation to each other generated main themes, which revealed the core meaning of the recovery at home experiences.

6.3.5 Determining validity

I reviewed each article and reflected over the consensus on the established main themes and sub-themes. I identified the validity of the main themes and sub-themes related to the patients’ experiences of recovery at home following their ambulatory surgery.

6.3.6 Interpreting the results

Finally, the 7 thematically analyzed themes I concluded were: physical symptoms, a period of regaining pre-operative functions, psychological effects, challenges with the surgical wound, delayed recovery process, social support, and the sick-role condition. These 7 themes will be presented descriptively in the finding’s part of this study (Appendix 8), which portrays patients’ subjective experiences during recovery time. All codes and themes and sub-themes were revised according to the aim of this paper by a single author (RM).

Finally, this systematic review included 7 primary research articles after thematic analysis process with 17 identified themes related to the patients’ self-reported experience of recovery at home following ambulatory surgery.

6.4 Ethical considerations

The ethical considerations were taken into account in all 7 included studies by receiving the permission from the ethical committee. Furthermore, the participants’ privacy and confidentiality and anonymity were guaranteed by protected databases known only to the sole researchers.
7 RESULTS

A systematic review of the 7 articles’ findings identified 7 themes as the core of the patients’ experiences during recovery at home following their ambulatory surgery procedure. The themes are portraying patient’s experiences of recovery process at home following ambulatory surgery. These 7 themes are: physical symptoms, a period of regaining pre-operative functions, psychological effects, the surgical wound, delayed recovery process, social support, and the sick-role condition. These 7 themes are presented in tables 3 (Appendix 10) and described in the following text.

7.1 Physical Symptoms

All 7 qualitative studies in this review discussed a type of physical symptom experienced by patients at home following their ambulatory surgery. These physical symptoms included the following: pain, post-operative nausea and vomiting, fatigue and sleep disturbance (Barthelsson et al., 2003; Barthelsson et al., 2002; Gilmartin, 2007; Mottram, 2011; Mottram, 2010; Renholm et al., 2009; Rosen, et al., 2010).

Pain was experienced as a challenging symptom because of the following reasons: Intensity and intolerability post-operation (Barthelsson et al., 2002; Barthelsson et al., 2003; Rosen et al., 2010), and diffusing and shifting pains in the stomach, in heart or when taking a deep breath (Barthelsson et al., 2003).

An intra-operative type of pain, such as a sore throat after intubation (which is experienced for one day to one week) or an unbearable pain in the shoulder caused during the surgery is exemplified with the following quote: “I thought, oh my God, what have they done to my shoulder, have they pulled it out of the socket?” (Barthelsson et al., 2002, p.256; Barthelsson et al., 2003).

The following are varying types of pain which were experienced as challenging during the first week of recovery: Pain caused by the type of surgical procedure (e.g., abdominal pain) (Barthelsson et al., 2003; Barthelsson et al., 2002; Gilmartin, 2005; Rosen et al., 2010). Soreness, smarting, burning pain in surgical wound (Gilmartin, 2005; Rosen et al., 2010). Pain during mobilisation or movement (Gilmartin, 2005). Pain despite usage of strong pain relievers can be exemplified with this quote: “I took the medications because they had been prescribed, but I got dizzy, had trouble concentrating, a headache and nightmares. I wasn’t myself until the fourth day” (Barthelsson et al., 2002, p.256; Barthelsson et al., 2003; Gilmartin, 2005; Rosen et al., 2010).

Post-operative nausea and vomiting were experienced symptoms which identified in 3 studies (Barthelsson et al., 2002; Barthelsson et al., 2003; Rosen et al., 2010) and these were experienced following discharge or during the following morning (Barthelsson et al., 2002; Rosen et al., 2010). Patients explained that the nausea was either because of the surgery itself (Barthelsson et al., 2002; Barthelsson et al., 2003; Rosen et al., 2010) or because of the tension or anxiety: “I felt nauseous....nausea because of the tension and anxiety” (Rosen et al., 2010, p.4). In 2 studies, patients explained that the nausea, dizziness and headaches were caused by the medications’ side-effects (Barthelsson et al., 2002; Rosen et al., 2010) and in one case, the patient experienced a lack of medication for nausea on the first night after surgery: “But the first night after the operation I should have had something for nausea” (Barthelsson et al., 2003, p.104). In 2 studies, the type of surgery caused the persisting nausea, such as abdominal surgery (Barthelsson et al.,
2002; Barthelsson et al., 2003) and in one study, the patient was so extremely nauseated over 3 days that he became dehydrated (Barthelsson et al., 2003).

Fatigue and sleep disturbance were other experienced physical symptoms which highlighted in 4 studies (Barthelsson, 2002 & 2003; Gilmartin, 2005; Mottram, 2010; Rosen et al., 2010). Fatigue was either felt later on during recovery in the form of tiredness and exhaustion, which restricted daily-life activities (Mottram, 2010; Rosen et al., 2010) or right after returning home: “Light-headed and fainted” (Gilmartin, 2005, p.1113). Sleep disturbance led to tiredness and limited daily-life activity (Gilmartin, 2005) and was also caused due to the pain and wound discomforts: “You sleep badly if you have pain...” (Barthelsson et al., 2003, p.104; Rosen et al., 2010).

7.2 A period of regaining pre-operative functions
Based on the type of surgical procedure, patients experienced different kind of symptoms while regaining basic functions and reestablishing pre-operative activities, which was explored in 4 studies (Barthelsson et al., 2002; Barthelsson et al., 2003; Gilmartin, 2005; Rosen et al., 2010). The consequences of the ongoing healing process to the basic functions interfered with discomfort, anxiety, uncertainty, tiredness and reduced daily functional activity following ambularoty surgery. Voiding difficulty and dysuria discomfort portaying anxiety because of pain – “Spasms for about ten minutes after voiding and then I felt OK”, (Rosen et al., 2010, p.4; Barthelsson et al., 2003; Gilmartin, 2005). Patients needed to be careful with their diet and how they were eating, “I have started to work. I used to eat a normal lunch but even a shrimp omelet is too much. I had to stop the care and vomit. It must be sometime between meals and one has to learn to live with feelings of hunger” (Barthelsson et al., 2003, p.104); loose bowl movement or vomiting when eating normal food (Barthelsson et al., 2002; Barthelsson et al., 2003); or leg tiredness when walking, exercising, or standing – “my leg gets really tired and the varicose vein pulsates when I exert myself and work out” (Rosen et al., 2010, p. 6), which restricted activity on the daily basis.

7.3 Psychological effects
Four of the studies provided accounts describing how psychological well-being could be affected by the ambulatory surgery procedure during recovery at home. Patients experienced a sense of fear and anxiety, vulnerability and mood swings, anger, sadness and disappointment (Barthelsson et al., 2002; Gilmartin, 2005; Mottram, 2010; Rosen et al., 2010). The sense of fear and anxiety was experienced as a result of facing several different challenging symptoms following ambulatory surgery, such as the following: fear because of a shocking self-image after surgical skin discoloration and after noticing excessive swelling and bruising wounds (Gilmartin, 2005); anxiety over having been too active during pain control with heavy pain medication (Rosen et al., 2010). The sense of vulnerability and mood swings due to the lack of support was another psychological effect (Barthelsson et al., 2002; Gillmartin, 2005). Additional experienced psychological symptom was the sense of stress because of incapability (Mottram, 2010). However, persisting psychological effects, such as feelings of anger, disappointment and sadness, were followed by the patients’ disagreement of the surgical outcome which were experienced three months following ambulatory surgery (Rosen et al., 2010).

7.4 The surgical wound
Four of the studies described patients’ experiences during the wound’s healing
process (Barthelsson et al., 2002; Gilmartin, 2005; Renholm et al., 2009; Rosen et al., 2010). Patients were experiencing discomfort, uncertainty because of lack of knowledge and anxiety because of pain during wound care following ambulatory surgery during home recovery. The lack of knowledge about surgical wound healing process, appearance and bruises led to uncertainty and discomfort: What should the wounds look like? One wound is still gaping open... How long does it take before the stiches fall out, and can I work? (Barthelsson et al., 2002, p. 256; Gilmartin, 2005). Furthermore, some patients which received self-absorbing sutures were uncertain about the surgical wound healing process: “I wish someone could have acted like she or he was interested in me and my wound and would have told me that everything is ok” (Renholm, 2009, p. 171). In addition, infection and bleeding discomfort portraying anxiety because of pain during wound care: “Since the wound bled after the surgery and it kept on bleeding that night, I think blood might have accumulated inside it, because I’ve got burning and smarting pain and my belly down toward my groin are numb” (Rosen et al., 2010, p 4).

7.5 Delayed recovery process at home

Three of the studies provided accounts describing a delayed recovery process at home because of unexpected complications or events (Barthelsson et al., 2002; Gilmartin, 2005; Rosen et al., 2010). Respondents described their wound problems at three months with no perceived reason for it: “The wound isn’t healing...it still hurts and is bleeding....cause???” (Rosen et al., 2010,p.5). Some patients experienced heavy vaginal bleeding for ten days (Gilmartin, 2005) and bleeding after the first surgery which required two additional surgical procedures (Rosen et al., 2010). Furthermore, some had a negative experience of the surgical outcomes: “Something went wrong or else I wasn’t reacting normally after surgery” (Rosen et al., 2010 p.5). Hospital readmission because of severe post-operative nausea and vomiting (Barthelsson et al., 2002), and bleeding shortly after returning home following the ambulatory surgery (Gilmartin, 2005) delayed and interrupted the recovery process at home.

7.6 Social support

Six studies described the effects of social support experiences in a positive or negative direction (Barthelsson et al., 2002; Barthelsson et al., 2003; Gilmartin, 2005; Mottram, 2011; Renholm et al., 2009; Rosen et al., 2010).

Patients’ social support were experienced positively due to the presence of support from their next-of-kin (Gilmartin, 2005), or a follow-up phone call as support from the hospital (Renholm et al., 2009), and a follow-up procedure as support by the community nurses at home (Barthelsson et al., 2002; Barthelsson et al., 2003).

The patients’ social support was experienced negatively due to the following: inaccessibility of family or community support at home (Barthelsson et al., 2002; Barthelsson et al., 2003 Mottram, 2011; Rosen et al., 2010); accessibility to support at home but frustration with next-of-kin, spouse or small children’s lack of understanding the patients’ sick-role position (Barthelsson et al., 2002; Barthelsson et al., 2003); and insufficient length of follow-up support by community nurses—“I would have preferred one more visit on the fourth day by AMHC. I had severe pain so it would have been good if they had come once more” (Barthelsson et al., 2003, p. 105; Barthelsson et al., 2002; Mottram, 2011). Furthermore, negative feelings occurred in patients due to insufficient support by healthcare providers, such as asking patients to visit a health care center for drain removal (e.g., “I felt really faint” (p. 3148)) instead of providing home visit support
Negative feelings also occurred due to providing the patient insufficient information on when they should care for their own wound(s) without support (Rosen et al., 2010) or whether they should visit a private clinic for procedures such as suture removal due to difficulties in reserving time with their own health care provider (Renholm et al., 2009). However, patients with a nostalgic view of previous health care provisions compounded their sense of anxiety and negative thoughts in relation to the current hospital services and community services: "When my mother was ill the district nurses were marvelous. Came every day. Even when she got better they called in. Now they want you to go to them" (Mottram, 2011, p. 3149).

Furthermore, a perception of negative social support by patients was caused by an absence of communication with health care providers during weekends: “I just wanted to know if how I was feeling was normal, but I didn’t know who to turn to” (Mottram, 2011, p.3148). Another communication problem was the lack of access of relevant information about ongoing counseling after immediate surgical interventions: “I do not understand how the health care works. Why didn’t they go over the whole thing at once, instead of keeping me unaware?” (Renholm et al., 2009, p. 171; Mottram, 2011) and questions related to wound care (Barthelsson et al., 2002; Renholm et al., 2009; Rosen et al., 2010). Furthermore, a study by Renholm et al. (2009) described and discussed the lack of information about the ambulatory surgery concept leading to discomfort due to the patients being active following the surgery: “…If I had understood how unwell I felt I wouldn’t have gone home. I should have needed detailed information what the day surgical treatment means” (Renholm et al., p.171).

7.7 Sick-role condition

The sick-role condition’s theme described the experiences that affecting the recovery process depending on the patients’ perception and adaption of the sick-role condition. Patients’ subjective experiences of the sick-role condition during their recovery time was cited in 4 different studies (Barthelsson et al., 2002; Barthelsson et al., 2003; Mottram, 2010; Renholm et al., 2009).

Patients actively sought the sick-role position because they were affected by experiences due to pain, an unhealed wound, frustration and nervousness about needing to get back to work while still sick. Therefore, they felt that they should be fully recovered from the surgery before returning to their daily activities (Barthelsson et al., 2002; Barthelsson et al., 2003; Mottram, 2010). Other patients who actively sought the sick-role stated that sick leave should be better planned based on an individual assessment (Barthelsson et al., 2002; Renholm et al., 2009). However, adapting the sick-role protected patients from their employer and family; it was experienced as a benefit for being exempted from normal responsibilities during their recovery time (Mottram, 2010).

Actively neglecting the sick-role condition was affected by a misunderstanding of the concept of ambulatory surgeries, which consequently led to patients feeling discomfort and pain: “…I thought I could get up and do a few jobs around the house. But when I got up I felt like I was going to faint” (Mottram, 2010, p. 143; Barthelsson et al., 2002; Barthelsson et al., 2003).
This thesis aimed to reach a deeper understanding of patient’s experiences of recovery at home following the ambulatory surgery procedure. This study revealed the patient’s experiences during home-recovery following ambulatory surgery, as it can be understood with the following themes: physical symptoms; a period of regaining pre-operative functions; psychological effects; the surgical wound; delayed recovery process at home; social support and sick-role condition. Despite high quality of day surgery, home recovery remains a challenging experience for some patients. Patients’ individual needs for support from health care provider, next of kin, need for access to information as well as other need are not adequately met during recovery time following ambulatory surgery at home. The patients’ recovery period starts from the postoperative period until the patient gets back to pursuing normal daily activities (Kortilla, 1988; Kortilla 1990).

8.1 Discussion of methods
The focus of this study was to synthesize a review of a maximum number of relevant qualitative research studies in a limited time frame to explore the experience of ambulatory surgery patients during their recovery at home. Thus, this systematic review was undertaken to identify the patients’ experiences during their recovery at home which contributes to the identification of the improvement of health care providers, home support or service development. Hence to explore patients’ subjective experiences during recovery at home, no quantitative studies were taken in account through this entire study. However, this paper presented the thematic analysis of findings from a systematic review of qualitative research focused on the patients’ experiences during recovery at home following ambulatory surgery.

Why thematic analysis and not content analysis? The reason for this is that thematic analysis allows the combination of analysis of the frequency of codes with the analysis of their meaning in a text. On the other hand, content analysis involves the development of categories and then the frequencies of instances in which they are used in a text. Furthermore, the results from thematic analysis questions the patients’ perspective and experiences, and the context of its development are for health promotion and public health (Marks & Yardley, 2004). However, applying thematic analysis to the 17 themes from the findings of the primary studies yields 7 themes for the thematic analysis of qualitative literature relating to the patients’ subjective experiences at home. I revealed and explored how they experience symptoms, their self-care conditions, and the access they had to support and services during recovery. I found no distinguishable pattern when I explored the experience of recovery at home, such as geographic location with no access to home care support or other clinical support. However, the patients’ type of ambulatory surgery differed, but no strong differences were seen between these settings due to the patients self-monitoring, self-assessing, and self-evaluating signs and symptoms during recovery at home following ambulatory surgery.

8.1.1 Validation and trustworthiness
To enhance the validity of this systematic review, I used two different tools for appraisal and systematic analysis: CASP and thematic analysis by Boyatzis (1998). These were not only sensitive to the quality of the frameworks of qualitative studies, but also helped to
present trustworthy findings. The trustworthiness and strength of this study are based on the following several different undertaken stages:
* Using only qualitative research studies, which helped me integrate studies from different sources on the same subject that involved not only descriptive approaches (6/7) but also the patients’ subjective experiences
* After integration of all related themes, a discussion with the university lecturer as an independent actor helped me identify that one of the related themes needed to be reconstructed
* Through the whole data analysis process, I tried to use quotes from different patients with awareness and was open to the pre-understanding of the patients’ own experience during recovery at home, which protected the study against problems with selection bias and strengthened the internal validity

However, the risk of bias was identified in one study which was judged eligible at first but was removed after thematic analysis due to the lack of clear evidence in relation to the patients’ subjective experience. The seven included research studies described each step that was taken during data analysis and provided an explicit statement of findings with sufficient data and quotes. The findings from this systematic review integrated 17 themes related to the patients’ experiences of recovery at home following ambulatory surgery, which provides important knowledge for health care providers.

8.1.2 Limitations of the review
This systematic review used only studies published in English, which may have created some language bias as some recovery at home following ambulatory surgery has been published in French or other languages. In addition, the search was conducted with only four electronic databases, which implies the possibility of lost data from other databases. Additionally, from March 2013 onwards, no more searching has been done, so this can be another bias in this systematic review. Other limitations were that the articles had their focuses on different stages of ambulatory surgery recovery and just a few studies had their focus only on the patients’ experience during recovery at home. Another limitation was that all of the included research studies were only conducted in Europe.

8.2 Discussion of results
From the caring science perspective and through exploring the aim of this study from the patient’s perspective, the findings of this study contribute to an increased understanding of postoperative recovery following ambulatory surgery by emphasizing that it is a self-motivated process in which patients experience subjective sensations whose intensity and existence is influenced by seven different factors (themes) unrelated to the type of surgery during recovery time.

8.2.1 Post-discharge physical challenges
The previous study addresses that the recovery process among ambulatory surgery patients takes place after leaving the hospital, and it relies on the patients to self-monitor, self-assess and self-evaluate for signs and symptoms (Kleinbeck, 2000). However, this systematic review demonstrated that patients were experiencing a challenging time during recovery time following ambulatory surgery due to the pain (e.g., varying degrees of pain or pain despite usage of strong pain relievers), nausea and vomiting (e.g., nausea and vomiting was so severe that it continued for three days and led to dehydration), fatigue and sleep disturbance. The aforementioned physical symptoms correspond with a previous systematic review, in which the researcher measured the patient's post-discharge symptoms; the results included pain, nausea, vomiting, and fatigue experienced during home recovery following ambulatory surgery (Wu et al., 2002). Another previous study
by Mitchell (1999a), revealed that the patients' highest concern during recovery at home was pain management. However, information provisioning and pain management at home were the greatest challenges among patients. This knowledge could increase awareness among health care professional that patients self-monitor, self-assess and self-evaluate for signs and physical symptoms during their recovery time at home and that it is currently not under control with adequate treatment or management. Therefore, it may lead to vulnerability and irritability as it can be understood in relation to Watson's (1988) caring theory, which emphasizes that health relies on the patient’s unity and harmony within the mind, soul and body. The patient’s body is not considered on its own, but rather it is connected to his/her mind (e.g., experiences) and spirit (soul or inner self). Therefore, a troubled inner self or soul leads to illness and illness produces disease. Furthermore, Watson (1988) describes physical symptoms (e.g., pain) as a subjective human experience, which is the interaction between biological, physiological, psychological, cultural, and spiritual influences. Hence, the nurse's caring process requires knowledge of the patient’s behavior (mind, body, and spirit), the patient's strength and limitations, and how to comfort them at home during home recovery.

8.2.2 Regaining preoperative functions
The findings of this study demonstrate that the recovery process constituted a path of regaining preoperative functions; for example, voiding ability or normal bowel movement based on the type of surgery, which interfered with discomfort, anxiety, uncertainty, tiredness and reduced daily functional activity during recovery time. Watson’s caring theory (1998) about a subjective experience of health, addresses that health is associated with the degree of understanding between the self as perceived and the self as experienced and the harmony of the mind, body, and spirit. Therefore, we can discuss that the lack of awareness and knowledge about regaining preoperative functions may cause insecurity, uncertainty, fear or anxiety, which may lead to the patient’s sensation of imbalance within mind, body, and spirit. Hence, patients and next-of-kin should be informed that surgical types of dysfunction and regaining preoperative function is time-consuming and will take several days before they begin to feel as they did before the surgery. As the previous studies by Devine (1992) and Breemhaar & Borne (1991) emphasized, the positive effects of preoperative education are on the patients' post-surgical anxiety, psychological well-being, and satisfaction.

8.2.3 Psychological well-being
Caring science stresses the importance of the patient’s subjective feelings, because changes that occur in the body in relation to health, illness, crises or other sufferings consequently change the patient’s life-world experience (Watson, 1988). A shocking self-image after surgical discoloration negatively affects the patient’s psychological well-being with feelings of fear and anxiety, which was explored in one study. Furthermore, this systematic review explored the experience of vulnerability and mood swings being examples of a sense of stress due to incapability. Therefore, it is important for patients and their next-of-kin to have a clear picture of postoperative symptom signs and complications in order for the patient to cope with their illness and incapability when the emotional aspects of health and injury are involved (Lupton, 1996). To protect patients and next-of-kin from going through all of this discomfort and trouble, a transpersonal caring relationship with the patient is important, which means having a caring focus on education, comprehensive assessments and working with other health care providers (Watson, 1990d). It is important for nurses to understand the importance of support during recovery at home. Nurses should be able to provide optimal and secure care through identifying “how patients experience their health, their suffering and well-being”
(Dahlberg et al., 2003, p. 25) and how next-of-kin cope with postoperative care responsibilities during recovery at home following ambulatory surgery.

8.2.4 Wound care experiences

Overall, with regards to wound care, this systematic review highlights the experience of wound-care difficulties (e.g., bleeding and infections). A lack of information and insufficient preparation for self-care at home (Boughton & Halliday, 2009) may contribute to uncertainty and insecurity when self-care is needed. Hence, patients need to ensure that they have recovery support when tending to the wound (Mitchell, 2003), as was mentioned before. However, a study by Young & O’Connell (2001) found that 17% of patients sought help from their General Practitioner due to the problems they were experiencing during recovery at home, such as pain and wound care. The aim of supporting self-care should be on providing a comfortable home environment during the recovery period. Jane Watson’s caring theory expresses the role of nurses to see the patient in the context of their environment (e.g., family, culture, community, society). Hence, we cannot consider ambulatory surgery patients without their context or their environment during home recovery. Furthermore, Watson emphasizes creating a “healing space” and promoting mind-body-spirit wholeness and healing (Tomey & Alligood, 2002). Von Koff et al. (1997) suggests that patients feel more empowered to manage their own care if health care providers involved the patient and their next-of-kin during the discharge planning process and by adapting a regular nursing intervention (Von Koff et al., 1997). This should be carefully recognized based on the type of ambulatory surgery and their need for support (Marley & Swanson, 2001).

8.2.5 Delayed recovery process

Furthermore, dealing with the post-surgical complications (e.g., wound problems for three months or vaginal bleeding for 10 days) may contribute to the appearance of stressors, as is highlighted in this systematic review. Watson (1988) emphasized that an increased level of self-awareness and coping ability can better prepare patients to deal with situations involving change or conflict (Watson, 1988). A previous study by Dickson & Riegel (2009) addresses the importance of nurses educating the patients and their next-of-kin in self-care skills when the patients are still in a hospital setting. Thus, patients can be prevented from making mistakes during their recovery at home. Hence, patients’ adequate self-care activity requires symptom recognition, knowledge of necessary self-care assessment and even confidence in their situation (Riegel & Dickson, 2008). In addition, it is important to encourage practicing self-care in addition to providing patients with contact support information for the surgeon or responsible physician and enough accessible staff during their recovery at home (Marley & Moline, 2000).

8.2.6 Support

The meaning of social support for patients in this review was when support was presented in the form of next-of-kin or a follow-up phone call from the hospital or community nurses at home. However, social support was experienced negatively because of a lack of support or understanding of the patients' sick-role during their recovery at home by the next-of-kin or nurses. Self-care in the community following discharge from ambulatory surgery had been known to be difficult across a range of surgical specialties (Costa, 2001; Chanthong et al., 2009). In addition, Garraway et al. (1978) stressed that 17% of the next-of-kin were not able to cope with postoperative care responsibilities. They considered that patients should receive a longer recovery period at the hospital instead of being discharged early from the hospital. However, it is a risk for patients to be unprotected during their recovery at home following ambulatory surgery when support is lacking.
Lack of social support may contribute to the disease because the patient may feel alone and could become overwhelmed by all the demands of the situation (Geiser, 1989). Social support has a moderating effect on stress experiences; the support means that an event is not perceived as stressful due to the awareness that social support is there when needed. When the person gets help, it prevents the progress to disease such as mental health problems or impaired coping ability (Pilisuk & Parks, 1986). Therefore, to create a “healing space” and promote mind-body-spirit wholeness and healing for ambulatory surgery patients at home, nurses should provide the appropriate support, education, knowledge and training for self-care during home recovery (Tomey & Alligood, 2002).

Furthermore, this systematic review highlighted that a lack of social support induced a nostalgic view of previous healthcare provisioning when patients perceived the level of service, which was no longer provided by healthcare services. This kind of perception around social support was compounded with a sense of anxiety and negative thoughts. Nostalgia is defined as an emotional longing for a past time (Sedikides et al., 2008). A study by McCloud et al. (2011) explored the effects of previous positive surgical experiences; this helped patients to alleviate psychological distress and physical difficulties, facilitated the individual's coping ability during the perioperative period and flowed it into postoperative self-care. Hence, nostalgia may contribute to feelings of a sense of continuity with the past and social affinity with the present, which can provide a sense of positivity, thus enabling the ability to cope with perceived threats (Sedikides et al., 2008). It is important that nurses recognize and understand patients’ nostalgic view of surgery through empathic communication and to provide appropriate nursing interventions during recovery at home.

8.2.7 Sick-role experiences

When promoting the physical condition, the negative experience of the sick-role condition caused nervousness and affected the length of the recovery process at home following ambulatory surgery. Limitations to return to normal daily activities were affected by unhealed wounds, pain or by not being fully recovered. Patients sought longer sick-leave and adapted to their sick-role due to exemptions of daily responsibilities. The meaning of the sick-role condition through caring science identifies that the patients’ experience of well-being and readiness to go back to normal life is a subjective feeling of the inner life world. An existence of life in a world surrounded by e.g. other humans, nature, events, sickness and being a part of it with subjective experiences of the physical, natural world, emotions, memories and much more, and the perceptions and understanding of life in the world (Watson, 1997). Nurses should help patients to find meaning to the crisis in their lives; to do so, we need to provide a transpersonal caring relationship, which means that nurses might experience multiple “caring occasions” with the patient to help them plan a suitable self-care at home with their changed body (Watson, 1990d). Furthermore, the sick-role situation should be better planned based on the needs identified from an individual assessment.

In addition to the sick-role condition during recovery at home were the patients who actively neglected their sick-role, consequently feeling discomfort and pain. A previous study by Stephenson (1990) argued that patients and their next-of-kin must be prepared for post-operative complications at home during the recovery period. They should be well-informed and educated on how to manage self-care when post-operative complications occur (Stephenson, 1990). This kind of attitude towards sick-role conditions was due to a lack of knowledge on the ambulatory surgery concept. Therefore, it is important to educate patients and their family about the context of ambulatory surgery...
and warn them of post-surgical symptoms and eventual complications and how they can be prevented and promoted in the home setting.

8.3 Implications for caring
The knowledge gained from this review will help healthcare providers support the self-care process during recovery at home. It should be noted that recovery at home guidelines following the ambulatory surgery need to be developed or designed for the management and treatment of patients in their own home during self-care. This systematic review added knowledge about the need for interventions and how to improve patients’ recovery at home by developing a guideline that nurses and other professionals can apply in this area as follows:

- To provide enough accessible staff 24 hours at home;
- To ensure that the patients have a sense of security;
- To provide relevant information and encourage patients to practice self-care (e.g., wound care);
- To provide patients with contact support information for the surgeon or responsible physician;
- To immediately support careful pain management, pain evaluation, and assessment;
- To improve communication skills and support—the patient is the best teacher to learn from about their sickness; and
- To ensure that resources are available and that patients have full access to the community or primary care support to ensure the continuation of self-care support.

To reach a sufficient recovery at home following ambulatory surgery procedures, we need to implement changes in the care of patients during recovery at home following ambulatory surgery; work needs to be done for introducing changes, which can include changes in nursing interventions during recovery at home.

8.4 Conclusions
To undergo an ambulatory surgery and recover from it at home seemed to be a strong experience by patients, which was revealed in this systematic review. From Watson's caring science perspective and by exploring the experience of patients, we enhanced our understanding of the patients’ needs during the recovery period at home. In this systematic review, the patients’ experiences and the meaning of a high-quality recovery at home following ambulatory surgery was concluded as follows:

- To be free of pain, nausea, vomiting, sleeplessness, anxiety, fear, sadness or any other surgical discomfort during recovery at home, like in a hospital setting;
- By having full control and knowledge of symptoms and signs;
- A provision of adequate information, education, and medication during self-care management;

- A provision of sufficient support by next-of-kin and nurses;

- Being acknowledged in their sick-role conditions; and

- Having enough sick leaves for recovery.

However, through caring science, we enhanced the patients' experience during their recovery at home and we understood that recovery at home needed to be improved with adequate nursing contributions. Hence, the nursing aim should be based on human caring and the caring process requires knowledge of the patients’ behavior and subjective experience (including the mind, soul, and body); one's limitations and strengths; the degree of understanding, between the self as perceived and the self as experienced; and the knowledge of how to comfort the patient (Watson, 1988). Furthermore, to achieve recovery at home following ambulatory surgery, periodic quality improvements by perioperative nurses, community nurses and primary care nurses can, with compassion and empathy, contribute to a caring relationship with patients and their next-of-kin. Thus, a qualitative methodology with in-depth interviews focusing on the patients’ experience from a life-world perspective might provide better understanding and knowledge during recovery at home following the ambulatory surgery procedure.
9 REFERENCE


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