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CONTINUITY OF PATIENT CARE IN DAY SURGERY

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To my Family

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ABSTRACT

Continuity is a part of high-quality patient care. The purpose of this study was to analyse what factors are important in the continuity of patients' care, and how well continuity is achieved in different stages of the care of day surgical patients. Day surgery has become significantly more prevalent in the past few decades, and in order for it to be carried out successfully, continuity in care is particularly essential. The study was carried out in two stages. In the first stage (2001–2005) of the study, continuity was examined through a review of literature from the perspective of critical pathways, naming the continuity categories of time flow, coordination flow, caring relationship flow, and information flow. The first stage also entailed an analysis of matters important to the patient and problems concerning the achievement of care continuity, carried out by interviewing 25 day surgical patients. In the second stage (2006–2015), the degree to which the continuity of day surgical patient care was achieved was analysed from the perspective of patients (n=203, 58%) and nurses working in day surgery units (n=83, 69%), and suggestions for developing the continuity of day surgery patient care were made.

In this study continuity of care was examined through a review of literature from the perspective of critical pathways, naming the continuity categories of time flow, coordination flow, caring relationship flow, and information flow. Within these categories, several important factors for the patient were found. According to both patients and nurses, continuity of care is generally achieved to a high degree. Continuity of care is improved by patients being acquainted with and meeting the staff attending to them (nurse and surgeon) before and after the operation. From patients' perspective, there is room for improvement especially in terms of being admitted to care and in the carer-patient relationship. From nurses' perspective, there is room for improvement in terms of the smoothness of care. Nurses evaluated the continuity of care to be the least successful before and after the operation.

An extensive social and health care reform is planned in Finland in the coming years, aiming to enhance social and health care services and to create smoothly functioning service and care. As a topic of further study supporting the development of the service system, it is important to follow the patient's progress throughout the entire chain of care, e.g. as a case study. On the other hand, there is also a need to study the views of nurses and other health care professionals in health care, e.g. in primary health care.

Keywords: continuity of care, day surgery, critical pathways, coordination, caring relationship, information

Marja Renholm

PÄIVÄKIRURGISEN POTILAAN HOIDON JATKUVUUS

Hoitotieteen laitos, Lääketieteellinen tiedekunta, Turun yliopisto
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TIIVISTELMÄ

Jatkuvuus on osa laadukkaan potilashoidon toteutumista. Tämän väitöskirjatutkimuksen tarkoituksena oli analysoida, mitkä tekijät ovat tärkeitä potilaan hoidon jatkuvuudessa sekä miten päiväkirurgisten (PÄIKI) potilaiden hoidon jatkuvuus toteutuu hoidon eri vaiheissa. Päiväkirurginen hoito on lisääntynyt voimakkaasti viime vuosikymmeninä ja sen toteutumisessa hoidon jatkuvuus on erityisen keskeistä. Tutkimus oli kaksivaiheinen. Ensimmäisessä vaiheessa (2001-2005) jatkuvuutta tarkasteltiin osana hoitoketjuja koskevaa kirjallisuutta, analysoitiin potilaille tärkeitä asioita sekä jatkuvuuden toteutumisessa ilmeneviä mahdollisia ongelmia haastattelemalla 25 potilasta. Toisessa vaiheessa (2006-2015) analysoitiin päiväkirurgisten potilaiden hoidon jatkuvuuden toteutumista potilaiden (n=203, 58%) ja sairaanhoitajien näkökulmasta (n=83, 69%) sekä määriteltiin keinoja kehittää päiväkirurgisen potilaan hoidon jatkuvuutta.

Tässä tutkimuksessa hoidon jatkuvuutta tarkasteltiin kirjallisuuskatsauksessa hoitoketjujen näkökulmasta. Päiväkirurgisen potilaan hoidon jatkuvuuden kategoriat ovat tässä tutkimuksessa ajallinen kulku, hoidon sujuvuus, hoitosuhde sekä tiedonkulku. Näistä kategorioista löydettiin potilaille useita tärkeitä asioita. Hoidon jatkuvuus toteutuu sekä potilaiden että sairaanhoitajien mielestä pääsääntöisesti hyvin. Potilaiden hoidon jatkuvuutta parantaa se, jos he tietävät ja tapaavat heitä hoitavan henkilökunnan (sairaanhoitajan ja kirurgin) ennen leikkausta sekä leikkauksen jälkeen. Potilaiden näkökulmasta kehittämistä on erityisesti hoitoon pääsyssä sekä hoitosuhteessa. Sairaanhoitajien näkökulmasta kehittämistä on hoidon sujuvuudessa. Sairaanhoitajat arvioivat hoidon jatkuvuuden toteutuvan huonoiten ennen leikkausta sekä leikkauksen jälkeen.

Suomessa on suunnitteilla laaja sosiaali - ja terveydenhuollon uudistus tulevina vuosina. Uudistuksella halutaan vahvistaa sosiaali- ja terveydenhuollon palveluita ja luoda sujuvat palvelu- ja hoitoketjut. Palvelujärjestelmän kehittämistä tukevana jatkotutkimusaiheena on tärkeää seurata potilaan kulkua koko hoitoketjun osalta, esim. case tyypisesti. Toisaalta olisi tärkeää tutkia perusterveydenhuollossa toimivien sairaanhoitajien ja terveydenhuollon ammattilaisten näkemyksiä potilaan hoidon jatkuvuudesta päiväkirurgisen hoitoketjun muissa vaiheissa esim. perusterveydenhuollossa. Näin saataisiin tietoa hoidon jatkuvuuden ilmenemisestä sekä toteutumisesta hoitoketjun eri vaiheissa.

Avainsanat: hoidon jatkuvuus, päiväkirurgia, hoitoketjut, hoidon sujuvuus, hoitosuhde, tiedonkulku

TABLE OF CONTENTS

ABSTRACT	4
THIVISTELMÄ	5
LIST OF FIGURES, TABLES AND APPENDICES	7
LIST OF ORIGINAL PUBLICATIONS	8
1. INTRODUCTION	9
2. LITERATURE REVIEW	12
2.1 Day Surgery as a process.....	12
2.2 Continuity of care	14
2.2.1 Definition of the concept continuity of care.....	14
2.2.2 Critical pathways.....	15
2.2.3 Important factors and their realisation in continuity of care	16
2.3 Summary of the literature.....	22
3. PURPOSE OF THE STUDY AND RESEARCH QUESTIONS	24
4. MATERIALS AND METHODS	26
4.1 Sampling, settings and sample.....	26
4.2 Data collection and instruments	28
4.3 Data analysis.....	31
4.4 Ethical considerations.....	32
5. RESULTS	33
5.1 Critical pathways and continuity of care	33
5.2 Important factors and their realisation in continuity of care	33
6. DISCUSSION	37
6.1 Discussion of results.....	37
6.2 Trustworthiness, validity and reliability of the study	41
6.3 Suggestions for clinical practice.....	43
6.4 Suggestions for nursing research.....	44
6.5 Conclusions	45
ACKNOWLEDGEMENTS	46
REFERENCES	48
APPENDICES	53
ORIGINAL PUBLICATIONS	71

LIST OF FIGURES, TABLES AND APPENDICES

LIST OF FIGURES

Figure 1. Continuity of patient care in this study.....	22
Figure 2. The study design.....	25
Figure 3. Summary of the results.....	36

LIST OF TABLES

Table 1. Assessment of the suitability of a patient for day surgery.....	13
Table 2. Realisation of important factors in different categories of continuity of care ..	17
Table 3. Characteristics of samples in Evaluation phase II.....	27
Table 4. Instrument and variables of the Evaluation phase II	30

LIST OF APPENDICES

Appendix 1. Kyselylomake potilaille.....	53
Appendix 2. Kyselylomake sairaanhoitajille	62

LIST OF ORIGINAL PUBLICATIONS

This thesis is based on the following publications, which are referred to in the text with the Roman numerals I-IV.

- I Renholm, M., Suominen, T. & Leino-Kilpi, H. 2002. Critical Pathways. A systematic review. *Journal of Nursing Administration*, 32(4), 196-202.
- II Renholm, M., Suominen, T., Turtiainen, A-M. & Leino-Kilpi, H. 2009. Continuity of Care in Ambulatory Surgery Critical Pathways: The Patients' Perceptions. *MedSurg Nursing*, 18(3), 169-173.
- III Renholm, M., Suominen, T., Turtiainen, A-M., Puukka, P. & Leino-Kilpi, H. 2014. Continuity of care in day surgical care- perspective of patients. *Scandinavian Journal of Caring Sciences*, 28(4), 706-715.
- IV Renholm, M., Suominen, T., Puukka, P. & Leino-Kilpi, H. 2015. Nurses' perceptions of patient care continuity in day surgery. *Journal of PeriAnesthesia Nursing*. Accepted.

The original publications have been reproduced with kind permission of the copyright holders. The summary also contains unpublished material.

1. INTRODUCTION

Health care has undergone many changes over the past decades, both in Finland and internationally. The reasons for the changes include an increase in outpatient contacts and a decrease in the length of hospital stay. This is especially true in the field of surgery, operational treatment and care. Reasons for the growth of day surgery include surgical and pharmacological advances that have dramatically reduced the length of hospitalization needed for recovery from anesthesia and surgery (Castoro et al. 2007, Bellani 2008, Mattila 2010). With the increase in day surgery, brief hospital stays and self-care have become a greater part of preparation for, and recovery from, elective surgery. From patients' perspective, especially postoperative recovery following day surgery places responsibility for care at home on the patients themselves and their family members (Berg et al. 2013).

Day surgical care has advantages for both patients and the healthcare organization (Berg et al. 2012, Toftgaard 2012). Patients are mostly satisfied with day surgery due to the minimal disruptions in their lives when they are discharged the same day (Bellani 2008, Mattila 2010, Mottram 2012). From the viewpoint of the healthcare organization, day surgery is more cost-effective than inpatient surgery (Castoro et al. 2007, Bellani 2008): the costs for day surgery have been estimated to be 25–68% lower than inpatient care (Castoro et al. 2007). Day surgery has fast become the norm for nearly all elective surgery. In countries like the United States and Canada nearly 90% of all surgical procedures are performed as day surgery (Toftgaard & Parmientier 2006). In Finland, in 2013 63% of all elective surgery was performed as day surgery (Punnonen 2013) (in 2003, the figure was 37%); in other European countries, the corresponding numbers were as follows: Great Britain 62%, Sweden 80%, Spain 87% (mean for Europe as a whole in 2003 was 40%). The lowest proportion of day surgical procedures, 22%, was seen in Hungary. The differences in percentages between Europe and other parts of the world depend on variations in definitions: in the USA and Canada, a 23-hour stay may be regarded as a day surgery procedure (Gandhimani & Jackson 2006), while in Finland and other European countries day surgery is defined as a surgical procedure performed during the same day, with the patient admitted and discharged without an overnight stay in hospital (Castoro et al. 2007, Punnonen 2013).

In surgical treatment, the time and place is essential for the patient. The Health Care Act in Finland (Act 313/2011) aims at improving the status of clients as well as the quality of services and care. This is achieved by giving the clients freedom to choose the place of care, by guaranteeing equal access to services and by improving the quality of care and patient safety. In Finland are also an act of patients' status and rights, it says that all patients have right to high quality treatment (Act 785/1992). The most recent reform has been the opportunity, since the beginning of 2014, for patients to choose their own health care station and special medical treatment unit out of all public health care stations and

hospitals in Finland (Ministry of Social Affairs and Health 2014b). The aforementioned reform makes Finnish hospitals in a competitive position with one another, since patients are allowed to choose where they would like to be treated. This is a particularly large issue for surgical care. The timeframe within the operation can be arranged matters to the patient. The timeframe within which treatment has to be made available was already set in the care guarantee that came into force earlier (Act 313/2011) in Finland. Health examinations (non-emergency) by a nurse or physician are available from health centers within three days of making an appointment. Treatment has to be arranged within three months and specialist treatment within six months. (Ministry of Social Affairs and Health 2011.) In terms of patient care continuity, the speed with which a patient is admitted to receive care is essential. In the future, patients will be able to choose the location of care based on where the continuity of care is achieved best. This is also the case in many other countries, such as Sweden and other Nordic countries (Häkkinen & Jonsson 2009).

In the coming years, an extensive social and health care reform is set to take place in Finland, aiming to create a new service structure for public health care. In the future, it is likely that the entire service production of the social and health care branch will be administered in a new manner, instead of several separate organizations of today. (Ministry of Social Affairs and Health 2014a.) It is essential that patients' expectations regarding their care be met in health care, and one way to achieve this is through ensuring continuity in care. Continuity of care is a multidimensional concept affected by environmental, communication, patient, professional and system factors. (Gulliford et al. 2006.) Continuity of care has particularly been under consideration in the development of critical pathways. The critical pathway method is a complex intervention that should be performed by a multidisciplinary team, management, primary care professionals, and patients. (Vanhaect 2007.)

The purpose of this study was to analyze what factors are important in the continuity of patient's care, and how well continuity is achieved in different stages of the care of day surgical patients. The study was carried out in two stages. In the first stage of the study, continuity was examined through a review of literature from the perspective of critical pathways, naming the continuity categories of time flow, coordination flow, caring relationship flow, and information flow. The first stage also entailed an analysis of matters important to the patient and problems concerning the achievement of care continuity, carried out by interviewing 25 day surgical patients. In the second stage, the achievement of care continuity in the care of general surgery patients from the perspective of patients (n=203, response rate 58%) and nurses (n=83, response rate 69%) was analyzed based on data collected using a questionnaire, and suggestions for developing the continuity of day surgery patient care were made.

This study is a health care service research. The changes in service structures and procedures and care have brought a need for development in patient care continuity. In order to ensure care continuity, the development of day surgery procedures requires regional and local cooperation between specialized medical care and primary health

care. The information produced in the study can be used in developing the quality of surgical procedures and health care services, as well as care received by patients. In developing patient-centered care, elements of care that are significant to patients must be taken into consideration. In developing care the categories of continuity must be assessed systematically and in cooperation with patients in terms of the entire care chain.

2. LITERATURE REVIEW

The following paragraphs comprise a description of the day surgical care process and continuity of care based on literature. Continuity of care is examined from the perspectives of defining the concept, factors significant to critical pathways and continuity of care, and the outcomes of continuity of care. Day surgery as a process and continuity of care as concept were described based on a narrative literature search in years 1996-2014 and is reported in chapters 2.1 and 2.2.1. A systematic literature review was carried out on critical pathways (years 1996-2002, I), important factors and their realisation in patient care continuity in day surgery (years 1996-2014, III, IV).

2.1 Day Surgery as a process

In general, day surgery consists of admittance to surgery and discharge without an overnight stay in hospital (Toftgaard & Parmentier 2006). In Finland, a procedure registered as a day surgical operation is an episode of care where the surgical procedure is performed during the same day, with the patient admitted and discharged without an overnight stay in hospital (Castoro et al. 2007). A day surgical procedure is an elective operation requiring anesthesia more extensive than local anesthesia (Lahtinen & Valanne 1998.) The care process of a day surgical patient can be examined as part of either a chain of care (primary health care, specialized care) or a critical pathway. ‘Critical pathway’ refers to treatment within a single organization. From a patient’s perspective, the day surgical chain of care consists of the following stages: recognizing the health problem and seeking treatment, referral to a day surgical unit, preliminary examination and drawing up of treatment plan, waiting, day surgical operation and discharge, convalescence at home, possible postoperative examination, and awareness of the health problem being attended to. (Suominen & Leino-Kilpi 1997, Timmins & McCobe 2009.)

In Finland, the day surgical critical pathway often starts from the health care center, which is why collaboration between general practitioners and the professionals in hospital is of great importance in order to achieve a preoperative evaluation of patients admitted for day surgery (Barthelsson et al. 2003, Moss & Xiao 2004, Valanne 2005). The first steps of day surgical care consist of formal information about the planned surgery, provided in a timely manner, together with a patient-centered approach to provision of information about anesthetic procedures (Mitchell 2010). Provision of relevant, specific education and information is of key importance in all the phases of the day surgical process (Rhodes et al. 2006). Day surgery creates a challenge for nurses to provide pre- and postoperative education within the limited contact time they have with their patients (Mitchell 2007, Bellani 2008). Healthcare professionals have to inform patients that day surgery is not minor surgery, which is why sufficiently long recovery time is necessary (Mottram 2011a).

The day surgical care process can be divided into pre-, intra-, and postoperative stages. The preoperative stage usually includes a pre-operative visit, during which the suitability of the patient for a day surgery procedure is evaluated, a decision is made on surgical treatment, and the patient has received the necessary guidance. In the preoperative stage, the patient prepares for the operation at home. In the intraoperative stage, the operation agreed upon is performed. In order to succeed, day surgery requires proper timing of discharge (Kanerva 2006). Once the discharge criteria are fulfilled, the patient is discharged during the same day with someone to escort him or her; someone must also accompany the patient during the first night at home (Kangas-Saarela et al. 2002). The postoperative stage focuses on the patient's self-care at home, care administered by family members, an evaluative telephone call and possibly a postoperative visit, e.g. at a health care center (Berg 2012).

Not all patients are suitable for day surgery; suitability is always assessed by a surgeon and/or anesthetist, nurse, and the patient him- or herself (Millar et al. 1998, Kenny 2011). Contraindications to day surgery may include e.g. the poor overall condition of the patient or psychosocial reasons. In assessing the suitability of a patient for day surgery, the ASA classification, or anesthesia risk classification, is used. (See Table 1) (Korttila & Kangas-Saarela 2006).

Table 1. Assessment of the suitability of a patient for day surgery (Korttila & Kangas-Saarela 2006)

ASA 1: healthy person over 1 or under 65 years old

ASA 2: healthy person under 1 or over 65 years old, or person with a mild disease well under control with treatment (e.g. hypertension)

ASA 3: person with a serious systemic disease that limits activities but is not life-threatening (e.g. insulin-controlled diabetes, stable coronary disease)

ASA 4: person with a serious, life-threatening systemic disease (e.g. unstable coronary disease, poorly controlled diabetes, cerebral circulatory disorder)

ASA 5: terminally ill patient

Categories ASA 1, ASA 2, and ASA 3 are suitable for day surgery, providing that the patient's condition is stable (Korttila & Kangas-Saarela 2006). In addition, the patient must consent to a day surgical operation (Lahtinen & Valanne 1998, Kangas-Saarela et al. 2002).

In 2013, the most common day surgical digestive tract procedures in Finland were inguinal hernia operations (11,079 episodes of care), followed by gall bladder operations (7,934 episodes of care) (Rainio & Rätty 2015.) Elective hernia repairs and laparoscopic cholecystectomies are ambulatory procedures where potential complications are either well characterized or infrequent (Bisgaard et al. 2011). For the aforementioned reasons, these two common groups of patients were selected for this study.

For more than a decade, inguinal hernia operations have been performed in day surgery, often as laparoscopic operations. During the operation, the hernia sac is removed and the hernia defect is covered with a non-absorbable synthetic mesh. The duration of sick leave is 2 to 4 weeks, depending on the nature of the patient's job and the choice of operation technique for the procedure. (Airo & Tuuliranta 2002, Simons et al. 2009.)

Cholecystectomy, or surgical removal of the gall bladder, has been performed as a laparoscopic day-surgery operation since the early 2000s. Compared with the previously favored open surgery, this laparoscopic procedure has the benefit of reducing the duration of sick leave from 5 weeks to about 7 days. In addition, the smaller wounds reduce the number of wound infections and post-operative complications. (Kiviluoto, 2006.)

2.2 Continuity of care

2.2.1 Definition of the concept continuity of care

In this study, the main concept is continuity of patient care. Continuity is defined as 1. the state of being continuous, 2. a continuous whole, 3. a motion picture scenario. In defining continuity of care there are two concepts that are very close to continuity, namely 'continuous' and 'continuum'. Therefore they are also defined here. The term continuous is defined in dictionaries as 1. prolonged without interruption, 2. in an unbroken series or pattern, and 3. progressive. Continuum, for its part, is defined as a continuous extent, series, or whole (The Random House Webster's Concise Dictionary 1987).

Continuity of care can be examined between patient and care unit (De Jesus et al. 1996), between care units (Andersson & Helms 2000) and between professionals (Gulliford et al. 2006). Continuity of care is often viewed from patients' perspective (Björkelund et al. 2013). When defining the concept from patients' perspective, continuity of care is individual patients' experience of integration of the healthcare service and organization (Haggerty et al. 2003, Gulliford et al. 2006, Waibel et al. 2012), and on the other hand, for patients, continuity of care is a continuous caring relationship with health care professionals (Gulliford et al. 2006). Continuity of care may also be thought of as the result of good patient care coordination or integration (Haggerty et al. 2011). Patients' personal involvement has been considered as one facilitating element in the continuity of care (Waibel et al. 2012). The two characteristic elements of continuity of care are availability (Haggerty et al. 2003, Donaldson 2001) and planning (Ireson 1997, Andersson & Helms 2000, Spardel & Andersson 2000).

Continuity of care has also been examined from the perspectives of carer-patient relationships, leadership, and information flow (Reid et al. 2002, Haggerty et al. 2003).

Reid et al. (2002), for example, have created a model of continuity of care consisting of the following elements: information continuity, management continuity and relationship continuity. Informational continuity refers to the use of information from previous events to provide adequate care to the patient. Management continuity is the provision of complementary services within a shared management. It ensures connections to consistent and coherent management by different clinicians. Relational continuity is the relationship (therapeutic) between a patient and one or more clinicians. (Reid et al. 2002.)

Based on previous studies, some factors essential and important in terms of continuity of care have been identified, even research on the topic has not been very systematic. Factors identified as important in terms of continuity of care are scheduling of treatment and admission to care (Andersson & Helms 1995, Otte 1996, Costa 2001, Barthelsson et al. 2003, Gilmartin 2004, Freeman & Denham 2008, Gilmartin & Wright 2008). On the other hand, factors significant for continuity of care also include how different care units organize the patient care and how are the different units aware of each other's roles in the patient's chain of care (Andersson & Helms 2000, Haggerty et al. 2003, Mitchell 2004). Other important factors related to continuity of care include health care professionals involved in the patient's treatment, and from a patient's perspective, continuity in the carer-patient relationship (Hussein & Carriere 2002, Barthelsson et al. 2003, Pandi & Saultz 2006). Also related to continuity of care in a significant way is the reception of information on the one hand, and the transfer of information regarding the patient on the other (Otte 1996, Sturmberg 2000, Donaldson 2001, Mitchell 2003).

2.2.2 Critical pathways

Critical pathways are usually connected with the continuity of care, this is especially true on organizational level. The interest in this study was to find out how the critical pathways influences patient care and continuity. A systematic search of critical pathways was updated with the same search words as in the review (I). The search was performed in two international databases, Cinahl [EBSCO] and Medline [Ovid]. The search terms were critical pathways (mp) AND ambulatory care (mp) AND ambulatory surgical procedures (mp) AND nursing process (mp). After analysis of the full texts from 2001–2015, 12 articles were included in the analysis.

There are many different definitions of critical pathways, and they have been formulated in many fields, such as gastrosurgery, orthopedics and day surgery (Chelly et al. 2005, Hensen et al. 2005, Frutos et al. 2007). Continuity of care has particularly been under consideration in the development of critical pathways.

A critical pathway can be seen as a method for the management of patient care of a well-defined group of patients for a well-defined period of time (DeBleser et al. 2006, Vanhaect et al. 2010). A critical pathway can also be seen as a plan of care that aims

to promote organized and efficient multidisciplinary patient care, based on the best available evidence and guidelines for a specific condition (Kwan & Sandercock 2004, Kinsman et al. 2010). Furthermore, a critical pathway is a way to ensure the continuity and coordination of patient care (Vanhaect et al. 2010). In some of the definitions, the outcomes and meaning of critical pathways have been identified. They have shown to improve patient care and reduce costs. The overall purpose of critical pathways is to improve outcomes by providing a mechanism to coordinate care and reduce fragmentation (Panella et al. 2003). Critical pathways also support to plan the resources needed for high-quality patient care (Vanhaect et al. 2010). For example, a critical pathway for surgical patients was successfully implemented in a single-payer system. Patients were very satisfied when a critical pathway for surgical patients decreased the utilization of hospital resources while maintaining high patient satisfaction (Ferri et al. 2006).

2.2.3 Important factors and their realisation in continuity of care

A systematic search was carried out in three international databases (Cochrane, Cinahl and Medline) aiming to find out information about important factors and their realisation in patient care continuity in day surgery. The search terms and strategy were as follows: Ambulatory Surgical Procedures (9,935 results)/ ((day or ambulatory or outpatient* or office) and surg*).ti, (6,147 results) ((day or ambulatory outpatient* or office) adj 4 surg*).mp. (25,247 results), Continuity of Patient Care (14,510 results)/ continu*. mp. (770,129 results), patient* adj5 (perspective* or perception* or experience'). mp. (121,071 results), nurse* adj5 (perspective* or perception* or experience*).mp. (11,705 results) (time or co ordination or rapport * or relation* or information*).ti (522,588 results). Ambulatory Surgical Procedures or ((day or ambulatory outpatient* or office) adj 4 surg*) ti or ((day or ambulatory outpatient* or office) adj 4 surg*).mp. and (time or coordination or rapport * or relation* or information*).ti (543 results). The search was limited to articles in English, with an abstract available, and the years 1996–2015. Out of 543 articles, 51 were taken into analysis. In the analysis, the following categories of day surgical patient care continuity were used: time flow, coordination flow, caring relationship flow, information flow and background factors. Within those categories several important factors for patients were found. (See Table 2.) The table features the factors important for continuity of care in the case of each category. In addition, research on the topic and the realisation of continuity of care have been described for each category.

Table 2. Realisation of important factors in different categories of continuity of care

Continuity of care	Author(s); year
Time flow, important factors - Scheduling, waiting time, initiative	Leddy et al. 2003, Freeman & Denham 2008, Fraczyk & Godfrey 2010, Mitchell 2011
Realisation of time flow	Costa 2001, Barthelsson et al. 2003, Gilmartin 2004, Gilmartin & Wright 2008, Fraczyk & Godfrey 2010
Coordination flow, important factors - Arrangement of care, smoothness of care, initiative	Otte 1996, Barthelsson et al. 2003, Mitchell 2004, Moss & Xiao 2004, Stomborg et al. 2008, Övretveit 2011, Berg 2012
Realisation of coordination flow	Mitchell 2003, Dewar et al. 2004, Mitchell 2004, Bäckström et al. 2006, Crilly et al. 2006, Mitchell 2007, Bellani 2008, Berg 2012, Jangland et al. 2012, Majholm et al. 2012, Rosen et al. 2014
Caring relationship flow, important factors - Carer-patient relationship with nurse, doctor, carer responsibility	Pandhi & Saultz 2006, Rhodes et al. 2006, Stomborg et al. 2008, Mottram 2011a
Realisation of caring relationship flow	Barthelsson et al. 2003, Lindwall et al. 2003, Rudolfsson et al. 2003, Bäckström et al. 2006, Majasaari et al. 2007, Suhonen et al. 2007, Gilmartin & Wright 2008, Lindwall & Von Post 2009, Barthelsson 2009, Chan et al. 2011, Mottram 2011b, Mottram 2011c, Mitchell et al. 2013
Information flow, important factors - Receiving information, transfer of information, initiative	Rhodes et al. 2006, Heikkinen et al. 2007, Mitchell 2007, Bellani 2008, Mitchell 2010, Berg 2012, Berg et al. 2013, Mitchell 2014
Realisation of information flow	Mitchell 2003, Dewar et al. 2004, Gilmartin & Wright 2007, Heikkinen et al. 2007, Rankinen et al. 2007, Stomborg et al. 2008, Tse & So 2008, Boughton & Halliday 2009, Leino-Kilpi et al. 2009, Fraczyk & Godfrey 2010, Mottram 2011 b, Majholm et al. 2012
Background factors contributing to evaluating the realisation of categories of continuity of care	Tse & So 2008, Berg et al. 2011, Mitchell 2011, Berg 2012, Mitchell 2014

Factors important in terms of time flow related to care include scheduling, waiting time, and initiative in different stages of care. Timeliness regarding surgical times is important when meeting patients' care expectations (Freeman & Denham 2008). Patients have experienced anxiety on the day of surgery with the wait (Freeman & Denham 2008,

Mitchell 2011). When made to wait, patients may also get the sense that their time is worth less than that of those providing the care (Leddy et al. 2003). Preparing for the upcoming procedure is an important stage in the continuity of care and time flow. Based on their study, Fraczyk & Godfrey (2010) recommend that patients should be sent to preoperative assessment immediately after their outpatient clinic visit. This way, each patient could be guaranteed the possibility to get a preoperative assessment. (Fraczyk & Godfrey 2010.)

In the realisation of time flow, several studies regarding day surgery have brought up the patients' dissatisfaction with the time flow of care. In a study focusing on the day surgical experience of 20 adult patients, they felt vulnerable and angry because of the unexpectedly long waiting times. (Gilmartin & Wright 2008.) In another qualitative study by Gilmartin (2004) using semi-structured interviews with 30 patients undergoing gynecological, urological and general surgery some patients reported that when surgical admission dates and times were changed at short notice and cancellations ensued, it provoked anxiety. Waiting times also cause anxiety. In a qualitative study by Barthelsson et al. (2003) patients undergoing laparoscopic fundoplication experienced that their anxiety was reduced when they were the first to undergo surgery on the day of the operation. In a study by Costa (2001) patients felt that they were not treated as individuals whilst waiting for surgery. They reflected that they would have found it beneficial having carers or relatives in the prewait area with them. (Costa 2001.) The realisation of time flow has also been evaluated from the viewpoint of preoperative assessments. Patients have been satisfied with the preoperative assessment (Gilmartin 2004, Fraczyk & Godfrey 2010).

Factors important in terms of coordination flow include arrangement of care, smoothness of care, and initiative. It is important for patients that care is continuous and coordinated even though care is managed in different parts of the patient pathway in different organizations. Coordination is needed between professionals and services when helping a patient within the boundaries of one organization. (Övretveit 2011.) In day surgical patient care, coordination of competent nursing care is essential (Stomborg et al. 2008). Coordination also requires collaboration. Collaboration between general practitioners in health care centers and the hospital is of importance in order to make the care continuous and achieve a preoperative evaluation of patients admitted for day surgery (Barthelsson et al. 2003, Moss & Xiao 2004). Patients' self-steering ability in ambulatory surgery is supported by previous studies (Otte 1996, Mitchell 2004, Berg 2012). The patient must be able to administer self-care at home and to assess when to seek treatment in the event of possible complications (Berg 2012).

In the realisation of coordination flow, studies regarding day surgery patients have been done especially concerning self-care and care administered by family members. Based on previous studies, patients play an important part in day surgery: they carry a big responsibility for their self-care because of the short stay in hospital (Mitchell 2007, Bellani 2008, Jangland et al. 2012), and part of this responsibility is carried by partners or relatives (Mitchell 2004, Berg 2012, Majholm et al. 2012). The lack of a model of

continuity of care may also require that patients are sufficiently independent to be able to coordinate their own care in the event of complications, for example (Mitchell 2003, Crilly et al. 2006). Day surgery also seems to rely heavily on the care provided by relatives (Mitchell 2003, Majholm et al. 2012).

According to patients' experiences, they need closer follow-up support after the day of surgery (Dewar et al. 2004, Bäckström et al. 2006, Mitchell 2013). According to Berg (2012), the continuity of patients' postoperative care needs to be further developed. The postoperative phase (recovery at home) seems to lack support for patients managing their care. Postoperative recovery implies big responsibility for patients at home (Berg et al. 2013) and their relatives (Majholm et al. 2012). In day surgery, improving clinical practices and routines, such as discharge criteria, guidelines and care pathways is necessary (Rosen et al. 2014).

Factors important in terms of caring relationship flow, include the patient's carer-patient relationship with the nurse and doctor involved, as well as carer responsibility. Nurses must provide psychological support and ensure that everyone taking part in patient care as well as the patient understands what day surgery entails (Mottram 2011a). Continuity of care by the same nurse has been identified as an important factor in achieving both improved mental well-being and decreased postoperative pain (Rhodes et al. 2006). Another factor important in terms of carer-patient relationship is the patient's relationship with the doctor treating him or her. Patients value highly the relationship with their physician (Pandhi & Saultz 2006). In the optimal case, the overall safety of and satisfaction with patient care in day surgery requires a multiprofessional approach and responsibility in continuous patient support and preoperative screening (Stomborg et al. 2008).

In the realisation of caring relationship flow, both communication and the carer-patient relationship between the health care professional and patient have been found significant in assessing the realisation of continuity of care. Based on findings from previous studies, the carer-patient relationship between carers and surgical patients can be improved by arranging preoperative and postoperative meetings between the patient and surgical nurse, thus enhancing the patient's experience of continuity of care being carried out (Lindwall et al. 2003, Bäckström et al. 2006, Stomborg et al. 2008). According to nurses working in day surgical units, patients' and family members' expectations of the day surgical nursing relationships are not always met (Majasaari et al. 2007). Patients have expressed the need to meet the surgeon who is operating on them both before (Barthelsson et al. 2003, Gilmartin & Wright 2008, Barthelsson 2009) and after the operation (Barthelsson et al. 2003, Barthelsson 2009). Patients would like to have a closer relationship with healthcare professionals after day surgical operation (Mitchell et al. 2013).

In a carer-patient relationship, the success of communication with health care professionals is significant to the patient. Patients did gain a better understanding of the surgical procedure and of the postoperative issues related to their life when the

preoperative communication with healthcare professionals worked well. Nurses and other healthcare professionals need to have knowledge, skills and positive attitudes to support patients in their day surgical critical pathway. (Chan et al. 2011).

The carer-patient relationship between health care professionals and patients can and should be improved. A study conducted in Sweden shows that nurses and other healthcare professionals can mend the shortcoming of the caring process by giving further perianesthesia/perioperative patient information. When perioperative nurses used the perioperative dialogue they were able to create continuity for patients and themselves in the pre-, intra- and post-operative phases (Lindwall et. al 2003, Rudolfsson et al. 2003, Lindwall & von Post 2008). In postoperative care, some patients appreciated encounters involving a personal visit and conversation with the surgeon. The so-called unsatisfactory encounters focused on hurried interactions. (Gilmartin & Wright 2008.) Mottram (2011b) emphasizes the significance of atmosphere, pointing to essential nursing skills such as helping build a relationship. The development of the carer-patient relationship between a nurse and patient should begin with the treatment of an individual patient, not with the organization. It has been recognized in a study conducted in Finland that the arrangement of day surgery is very treatment-centered, which can limit nurses' interaction with patients (Suhonen et al. 2007). Also Mottram (2011c) concluded in her study that day surgery can also be seen as a mechanistic way of providing care, although at the same time, Western culture emphasizes the importance of efficiency and speed (Mottram 2011c).

Factors important in terms of information flow include, receiving information, transfer of information between care units, and initiative. Giving enough knowledge as well as psychological aspects are important factors in the development of elective ambulatory surgical nursing (Mitchell 2007, Bellani 2008, Berg 2012). A pre-admission contact is central to the day surgical process (Rhodes et al. 2006) because it has been shown that prior to day surgery, patient anxiety is a challenging nursing issue (Mitchell 2010). Preoperative guidance can take place during a so-called preanesthetic clinic. Experiences on this type of activity have been positive, and the preanesthetic clinic offers an ideal opportunity for patient guidance and evaluation of the patient's need for care (Fitzpatrick et al. 1998, Kenny 2011). In addition, patients seek information independently from various sources, e.g. the Internet. Sufficient reception of information enhances the patient's capacity for self-care. Patients also need information and support in understanding what is part of normal recovery and how to manage their self-care at home after the operation (Berg et al. 2013).

Shorter hospital stays cause big challenges in terms of providing the patient with enough information to cope with his or her illness independently (Heikkinen et al. 2007). Change from inpatient to outpatient care has shifted the responsibility of postoperative care from healthcare professionals to patients and their relatives (Mitchell 2003, Boughton & Halliday 2009, Berg 2012, Majholm et al. 2012). The transfer of responsibility regarding

care to the patient and his or her next of kin may result in feeling unsafe in terms of care at home (Mitchell 2003, Boughton & Halliday 2009, Mottram 2011b, Berg 2012).

In the realisation of information flow, the flow and reception of information have been topics of study. A review by Gilmartin and Wright (2007) also highlights the importance of adequate preparation and continuous psychological support for patients undergoing ambulatory surgery. Perianesthesia nurses have a key role in providing sufficient information for patients. (Dewar et al. 2004.) Nursing interventions should focus on giving the patient information before surgery, preoperative patient health screening, and information/education at discharge (Dewar et al. 2004, Stomberg et al. 2008). Information about the operation and the course after the operation should be given to the patient before the operation (Stomberg et al. 2008). The timely and appropriate provision of different levels of information tailored to patients' coping styles and preferences is one way to improve the provision of information (Rhodes et al. 2006, Gilmartin 2007, Bellani 2008). The delivery of surgical and anesthetic information may help to enhance the recovery of patients at home, and they also are central to the continued success of day surgery (Mitchell 2014).

A preoperative visit to the day surgery unit has been found to improve the reception of information (Gilmartin 2004, Fraczyk & Godfrey 2010). In a study by Heikkinen et al. (2007), orthopedic surgery patients' knowledge expectations were higher than the knowledge they received. They received least knowledge about experiential, ethical, social and financial dimensions. (Heikkinen et al. 2007.) Very similar results were found by Rankinen et al. (2007) in their study. Surgical patients received less knowledge on the bio-physiological, functional, experiential, ethical, social and financial dimensions. (Rankinen et al. 2007.) There are findings showing that patients received most knowledge on the bio-physiological domain (Leino-Kilpi et al. 2009).

In each categories of continuity of care, several factors, e.g. patient's age, surgical procedure performed, state of health, patient's gender, health care professionals' technical skills, and pre- and post-operative information. Patients' age, type of surgery and their perceived health and emotional state should be considered by nurses taking care of patients in day surgery. In a study by Mitchell (2011) the majority of patients preferred to receive information between 1 and 4 weeks before the operation. Female patients were significantly more anxious before surgery and they would rather have waited for the operation in the day surgical unit with a relative or a friend to talk with or with other patients. Anxiety was even more prevalent amongst general anesthesia patients and they desired more information. (Mitchell 2011.)

The delivery of preoperative information to ambulatory surgical patients has been affected by limited teaching aids, tight operation schedules and language barriers (Tse & So 2008). Internet- based education yielded positive results in patients' knowledge in a study conducted in Finland (Heikkinen et al. 2010). Based on earlier findings, different programs should be developed for postoperative care depending on the operation undergone by

the patient (Berg et al. 2011). Further development is needed to increase the quality of and patients' overall satisfaction with the experience of day surgery (Berg 2012). The Internet has proved to be a usable method in education in ambulatory surgery (Heikkinen 2010). Pre- and postoperative information has been shown to have a statistically positive association with patients being 'fully' prepared for the self-care at home (Mitchell 2014).

2.3 Summary of the literature

In this study, continuity of care refers to connectedness along the patient pathway. The critical pathway of the day surgical patient consists of a whole comprising pre-, intra-, and postoperative care. Critical pathways influences continuity of patient care.

In conclusion, the review of literature showed that the continuity of care at different stages was summarized in the following categories: time flow, coordination flow, caring relationship flow and information flow. The important factors in these flows were found from the literature. In time flow important factors were scheduling, waiting time and initiative. In coordination flow important factors were arrangement- and smoothness of care and initiative. In caring relationship flow the important factors were care-patient relationship with nurse and doctor and also their responsibilities. In information flow the important factors were receiving- and transfer of information and initiative. (See Figure 1.)

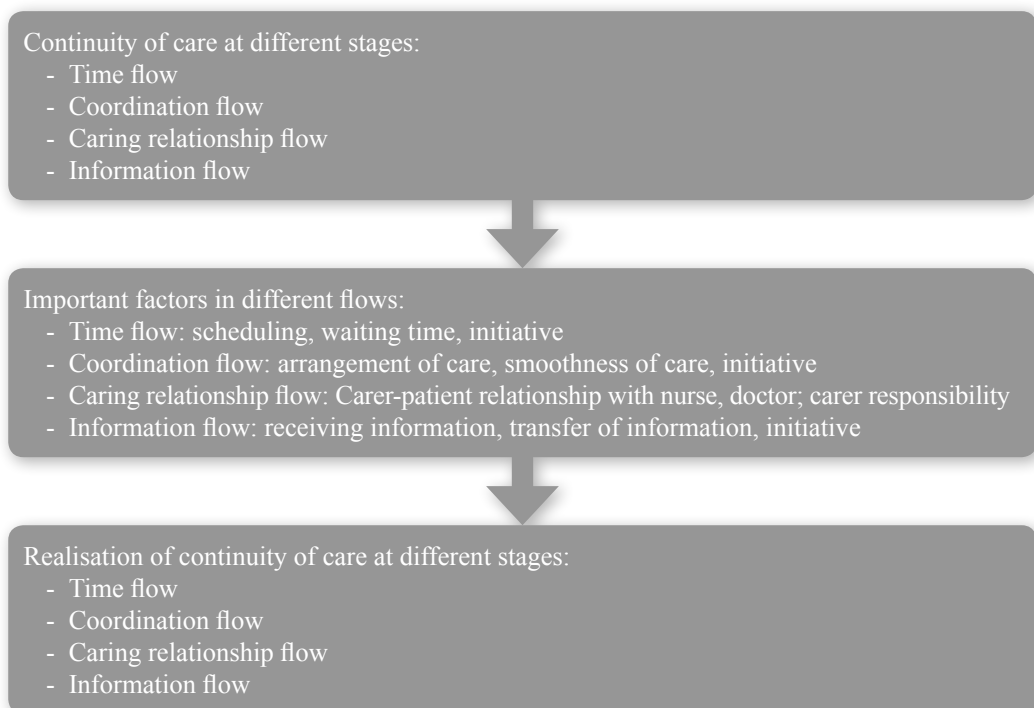


Figure 1. Continuity of patient care in this study

There are various challenges related to continuity of day surgical care. Despite the short hospital stay, health care professionals need to facilitate the continuity of care through the day surgery experience. Health care processes and information should be standardized and streamlined to reduce repetition. Several studies have been conducted on continuity of care in day surgery, with an emphasis on care during the day of the operation and preparation for the operation. However, there is little evidence-based information on care and continuity of care in the postoperative period.

3. PURPOSE OF THE STUDY AND RESEARCH QUESTIONS

The purpose of this study was to analyze what factors are important in the continuity of a day surgical patient's care, and how well continuity is achieved in different stages of care of day surgical patients. To do this, the ways in which critical pathways influences continuity of care were described, and analyses were carried out regarding factors important to continuity of care. The achievement of important factors of continuity of care and the realisation of continuity of care in day surgery were evaluated. Also the ways to develop continuity of day surgery care were described. The findings of the study are intended for developing the functionality of the service system and for improving the care received by patients. (See Figure 2.)

The following research questions were addressed:

Orientation phase

1. How do the critical pathways influence patient care and continuity?
2. What factors are important and how are they implemented in day surgery from patients' point of view?

Evaluation phase

3. How is the continuity of care realized in day surgery from patients' and nurses' point of view?
4. Which background factors are related to the realisation of the continuity of care in day surgery from patients' and nurses' point of view?
5. How can the continuity of care be improved?

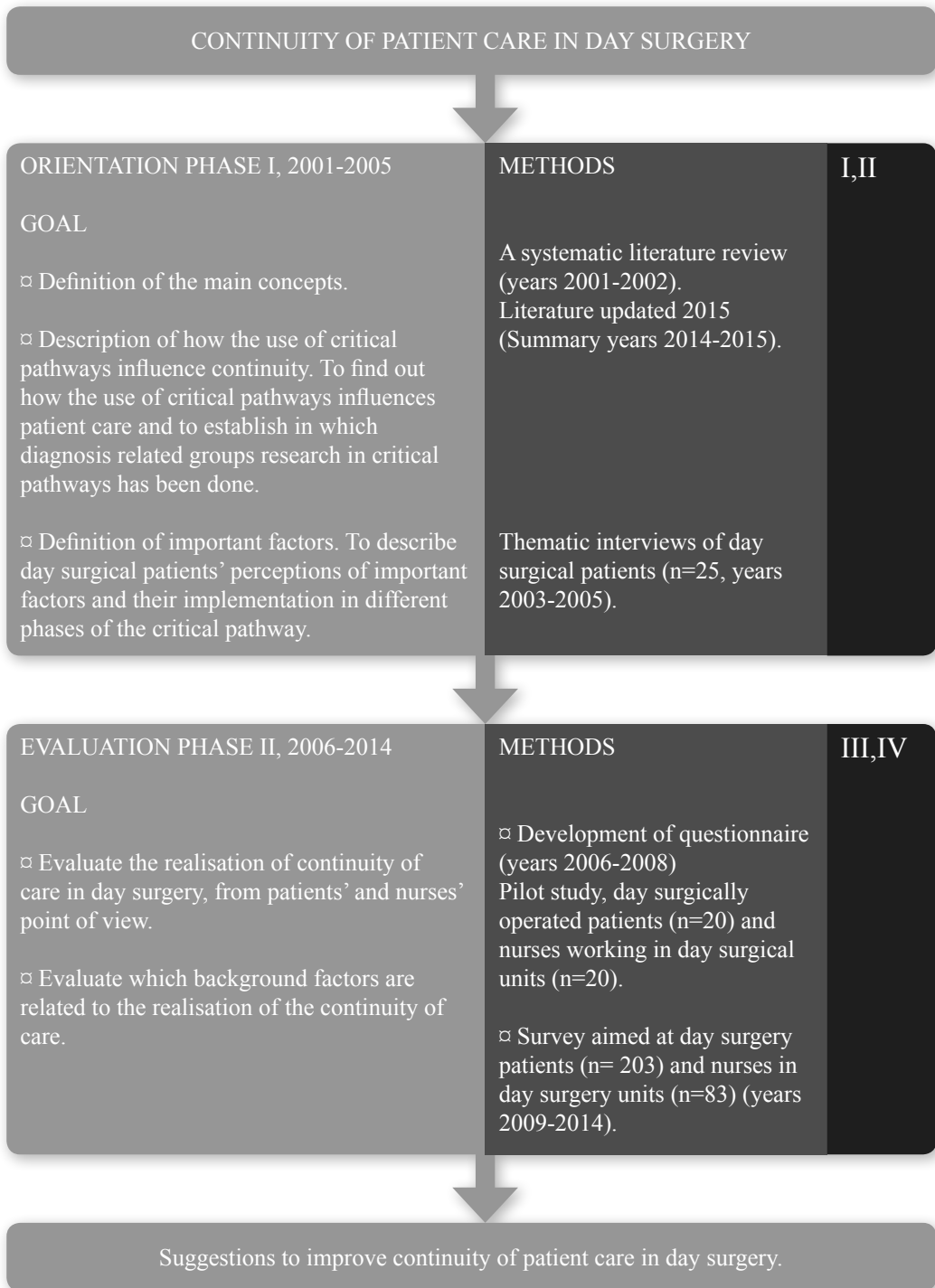


Figure 2. The study design

4. MATERIALS AND METHODS

4.1 Sampling, settings and sample

Orientation phase I (2001-2005)

A systematic review was conducted in order to find out how the critical pathways influence patient care and continuity. Articles from 1966–2000 from two different databases, Medline and Cinahl, were reviewed. Altogether 291 articles were found from Medline and Cinahl. A total of 238 articles were excluded because they were not written in English, Finnish or Swedish, or because they were articles that expressed comments, new items, opinion pieces, or letters. Of the 291 articles 53 remained for final consideration. A systematic search on critical pathways for the years 2001–2015 was updated with the same search words from the same databases as in the literature review; as a result, 12 new articles were included in the analysis. (I and summary.)

Empirical data were collected (10/2002–05/2003) from voluntary ambulatory surgical patients (n=25) at two different purposefully selected units in two hospitals within the largest hospital district in Finland (out of 20). Patients underwent either laparoscopic cholecystectomy or hernia operation, both being the most frequent gastrointestinal operations in ambulatory surgery (www.thl.fi). The interviewees were selected by using the following inclusion criteria: voluntary, ambulatory operated surgical patient and Finnish speaking. Over half of the study participants were male (n=16). Fifteen of the participants had undergone a hernia operation and 10 a cholecystectomy operation. The interviews were conducted on average 10 (range 5 to 30) days after the day of the surgical procedure. Earlier ambulatory surgery had been performed on 8 of the participants. Patients met on average 11.3 staff members during their day surgical critical pathway. (II).

Evaluation phase II (2006-2015)

In the evaluation phase the data consisted of patient and nurse data. The patient data were gathered from purposefully selected five different hospitals in the largest hospital district in Finland (out of 20) in 10/2009–12/2010. The study population (N= 350) of patients consisted of Finnish laparoscopic cholecystectomy and hernia patients who had undergone a day surgery procedure. The inclusion criteria for the patients were age over 18 years, Finnish speaking and capable of self-administering the questionnaire. Questionnaires were handed out to 350 patients. Ten patients refused to participate. Of the patients who accepted the questionnaire, 145 did not return the questionnaire, while two questionnaires were excluded due to missing data. The final response rate for patients was 58% (n=203). In the survey, the patients' ages ranged from 25 to 82 years (mean 53.6); 29% of the patients were female and 71% were male. The majority of the patients were married or cohabiting (82%). Nearly one third of the patients had

vocational education. Only 7% of the respondents had health care education. Over half of the patients (51%) were working while almost one third (31%) were retired. One hundred and fifty-two (76%) participants underwent a hernia operation while forty-eight (24%) had laparoscopic cholecystectomy. Most of the patients had not been operated on previously (80%). The patients answered the questionnaire at home on average on the 8th postoperative day (range 1-14). (III) (See Table 3.)

The study population (N=120) of nurses consisted of all nurses working in day surgical units in that hospital district in 12/2009-12/2010. The final response rate for nurses was 69% (n=83), and the majority (92%) were female, with a mean age of 44.2 (range 23-61) years. Eighty-eight per cent of the respondents had a permanent job. The work tasks of nearly all respondents (91%) included pre-, intra- and postoperative patient care, while the remaining nurses worked as so-call queue nurses, who inform patients of their scheduled surgery time and give them written guidance preoperatively. (IV) (See Table 3.)

Table 3. Characteristics of samples in Evaluation phase II (III,IV)

Characteristics	Patients (n=203)				Nurses (n=83)			
	mean	SD	min	max	mean	SD	min	max
Sociodemographic								
Age	53.6	13.03	25	82	44.2	9.7	23	61
Gender	n	%			n	%		
female	58	29			76	92		
male	144	71			7	8		
Marital status		82						
cohabiting	165	18						
single	37							
Education								
no vocational	33	16						
vocational training	64	32						
college diploma	39	20						
university	14	7						
registered nurse					48	56		
specialized nurse					35	42		
Work situation								
student	3	2						
working	103	52						
entrepreneur	18	9						
unemployed	8	4						
retired	63	31						
other	5	2						
Current position								
permanent					73	88		
locum					10	12		
Length of work experience								
0-5 years					10	13		
6-15 years					29	37		
>15 years					40	50		

4.2 Data collection and instruments

Orientation phase I (2001-2005)

In the orientation phase there were two different data sets, i.e., literature and interviews. In the literature review, a CD-ROM search was conducted using the keywords critical pathways, nursing process, ambulatory care, ambulatory surgical procedures, and short stay surgery. The review also charted in which diagnosis-related patient groups research in critical pathways has been done. Furthermore, methods that have been used in research related to critical pathways were searched. The data were gathered from the Medline and Cinahl databases.

Interview data (n=25) were collected through thematic interviews (Shenton 2004). The categories of continuity of care – time flow, coordination flow, caring relationship flow, and information flow – formed the basis of the thematic framework. In order to test the interview themes the researcher conducted three pilot interviews to day surgically operated patients'. The interview themes were validated by the pilot interviews and the study continued. (Shenton 2004). At the day surgery units, the nurses asked the participants for written consent to participate in the study on the day of surgery. Participants who gave consent were subsequently contacted by the researcher by telephone to arrange a suitable time and place for the interview. All interviews were conducted by one researcher (MR). The patients were interviewed at their homes, in cafés, or at the hospital. The length of the interviews varied from 25 minutes to 1.5 hours (mean 40 minutes).

Evaluation phase II (2006-2015)

In the evaluation phase, data were gathered from both patients (n=203) and nurses (n=83) using questionnaires. In the patient questionnaire (Appendix 1, questionnaire attached), the patients evaluated the success of the care they had received during different stages of day surgery treatment. The same instrument, slightly modified, was used to gather the data from nurses (Appendix 2, questionnaire attached). The nurses were asked for their views regarding continuity of care in the care of day surgery patients.

The questionnaires were developed for this study, based on literature and an interview study (Renholm et al. 2009). A pilot study was conducted with the questionnaire (patients and nurses) in another Finnish hospital (in a hospital district other than the one in which the actual data were gathered) administered to 20 purposefully selected day surgically operated patients (cholecystectomy and hernia) and 20 nurses. No changes were required. Pilot testing showed that the questions were understandable and easy to respond.

The questionnaire for patients consists of 41 Likert-Scale items (a five-point Likert-Scale was used, 1= strongly disagree, 5= strongly agree). The realisation of continuity of care

was divided into different categories: timing of care (9 items), coordination of care (9 items), caring relationship in care (9 items) and information in care (9 items). In timing of care the items measured waiting, scheduling, and initiative. In coordination of care the items measured arrangement of care, functionality of care, and initiative. In terms of caring relationships, the items measured the relationship between patient and nurse and doctor, as well as carer responsibility. In terms of information, the items measured access to information, flow of information and paperwork, and initiative. The questions were repeated for the situation before, during, and after the procedure. In addition, the questionnaire included 24 background factors (sociodemographic background, 6 items (age, gender, civil status, education, education in health care, job situation), 4 items about the procedure (the procedure performed, previously performed operations, earlier day surgical procedure, the day after the procedure), 7 items on preparing for the procedure (first visit to health care, who took care, care in outpatient clinic, phone call preceding the procedure, visit preceding the procedure, caring personnel, change of procedure time), 4 items about timing of care (waiting time, expected waiting time, caring personnel in day surgery unit, post-procedure phone call) and 3 items about care following the procedure (convalescence time, more information, removal of stiches). (See Table 4.)

Nurses in the day surgical unit asked patients about their willingness to take part in the study, and gave the questionnaire to those willing to take part in the study before they were discharged from the hospital on the day of the operation. Nurses informed patients about the study and asked them to complete the questionnaire at home one week after the operation. In the case of agreement, patients received the questionnaire and a return envelope. The patients returned the questionnaire by mail to the researcher. (III) The nurses' data were collected from the same units as the patients' data. The questionnaires were handed out to the ward managers who distributed them to nurses working in the day surgical units. The questionnaires were returned to the unit in sealed envelopes, and the study author collected the returned questionnaire forms. The patient data were collected first, followed by the nurses' data.

Table 4. Instrument and variables of the Evaluation phase II (III,IV)

To assess	Sub-areas	Items
Background factors (patients)	Sociodemographic	6
	Procedure (cholecystectomy or hernia)	4
	Preparation for the operation	7
	Admittance to care	4
	Post-operative care	3
		altogether 24 items
Background factors (nurses)	Sociodemographic	7
	Preparation for the operation	7
	Post-operative care	4
		all together 18 items
Continuity of care	Timing of care	9 (patients and nurses) - waiting, scheduling, and initiative
	Coordination of care	9 (patients and nurses) - arrangement of care, functionality of care, and initiative
	Caring relationships in care	9 (patients) - relationship between patient and nurse/doctor, carer responsibility 6 (nurses) - relationship with doctor, carer responsibility
	Information in care	9 (patients and nurses) - access to information, flow of information and paperwork, initiative
		altogether patients 36, nurses 33 items

The questionnaire for nurses consists of 33 Likert-Scale items (1= strongly disagree, 5= strongly agree). The realisation of continuity of care was divided into four categories: timing of care (9 items), coordination of care (9 items), caring relationship in care (6 items) and information in care (9 items). In addition, the questionnaire included 18 background factors (sociodemographic background, 7 items (age, gender, education in health care, job situation, work experience, length of working in present position, work task), 7 items on nurses' activities related to preparing the patient for the operation (first visit to health care, care in outpatient clinic, preoperative call, pre-operative clinic, information about attending nurse, surgeon and anesthesiologist, waiting time, expected waiting time), and 4 items about postoperative care (convalescence time, postoperative call, patient's

need for additional information, meeting the nurse, surgeon and anesthesiologist postoperatively in the day surgery unit). (See Table 4.)

4.3 Data analysis

Orientation phase I (2001-2005)

In the literature review the method of inductive content analysis (Cavanagh 1997) was applied to find out how the use of critical pathways has influenced patient care, what kind of research has been done in different diagnosis-related patient groups, and what methods have been used in research related to critical pathways. (I)

The data from the patient interviews were analyzed inductively by qualitative content analysis. The unit of analysis is an expression or a sentence conveying a clear meaning, relevant to a research question (Cavanagh 1997, Polit & Beck 2004, Braun & Clarke 2006). The analysis both grouped the data and made them more abstract. Expressions referring to the same type of content were grouped into subcategories; related subcategories were combined into categories, and further to main categories. (II)

Evaluation phase II (2006-2015)

The patients and nurses data were analyzed statistically using SPSS software for Windows (SPSS Inc., version 17.0, Chicago, IL, USA) and SAS (version 9.1, SAS Institute, Inc., Cary, NC, USA). The data were described using frequency tables and descriptive statistics. Four sum variables were formed: time flow (9 items patients and nurses); coordination flow (9 items patients and nurses); caring relationship flow (9 items patients and 6 items nurses); information flow (9 items patients and nurses). Finally, these four sum variables were combined to form a total sum variable. The consistency of these sum variables was estimated by calculating Cronbach's alpha coefficients. In the patient data the alpha coefficients ranged from 0.74 to 0.89: time-flow 0.75, coordination flow 0.77, caring-relationship flow 0.74 and information flow 0.78. In the case of the total sum variable total continuity of care alpha was 0.89. In the nurses' data the alpha coefficients ranged from 0.67 to 0.82: (time-flow 0.67, coordination flow 0.70, caring relationship flow 0.70 and information flow 0.82). For the total sum variable total continuity of care alpha was 0.89.

Comparisons between the sum variables were made using Wilcoxon Signed Rank test due to some skewed distributions. Spearman correlations were used to examine the interdependencies between the sum variables. Multivariate analyses were performed to identify the independent determinants of continuity of care (4 flows and total continuity of care). All univariately significant background variables were first included in the multivariate linear model and then removed one by one until all determinants in the model were statistically significant. The level of significance was set at $p < 0.05$. (Burns & Grove 2009.)

4.4 Ethical considerations

The research adhered to the general principles of research ethics (Pauwels 2007, ETENE 2009). Ethical approval was given for all empirical data collection both in phases I and II by an ethical committee. Permission to collect the data was obtained from hospitals authorities within the hospital district, senior physicians and nurse directors (phase I and II).

In the first stage of the study, nurses in the units provided patients with a patient information leaflet regarding the study, as well as an informed consent form. The patients participating in the study gave their written informed consent for participating in the study. The information leaflet emphasized that participation in the study was voluntary, and that participants could not be identified based on the data gathered. (Burns & Grove 2009, ETENE 2009.)

In the evaluation phase II of the study, head nurses or others designated by them (in two units) served as persons responsible in the study units. Patients' consent to participate was assumed by return of the completed questionnaires (Burns & Grove 2009). After completion of the patient survey, the persons responsible for the study distributed the questionnaire to all nurses who had participated in the care of patients who had undergone laparoscopic cholecystectomy or a hernia operation. The nurses based the decision regarding whether to participate in the study on the patient information leaflet. The nurses' informed consent for participation was inferred by returning completed questionnaires in a closed envelope to a place determined by the person responsible. The study subjects also had the option of handing in a blank form without the person responsible for the study being informed. The subjects responded anonymously, and their identity was not brought to the study author's attention. (Burns & Grove 2009, ETENE 2009.) The questionnaire forms were either mailed to the study author by the persons responsible, or picked up at the study units by the study author.

5. RESULTS

5.1 Critical pathways and continuity of care

The purpose of this part was to find out how the use of critical pathways influences patient care and also to establish in which diagnosis-related patient groups research in critical pathways has been conducted. Based on literature review the positive effects of using critical pathways are clear; they mostly have a positive influence on patient care. The positive correlation with patient care of using critical pathways comprises the following: patient satisfaction, patient education, continuity of care, continuity of information and quality of care. The use of critical pathways improved the continuity of care. The use of critical pathways also has an impact on the work of health care professionals. The use of critical pathways encourages healthcare professionals to look at patients from a holistic viewpoint and the entire care process from a team perspective. It provides the team with a common understanding of the process. When using critical pathways waste and length of patients' stay in hospital are reduced. In many articles, the results of the use of critical pathways indicated significant savings in total costs. Critical pathways have also been criticized; for example, because it is not possible to create them for all patient groups and because individual care may suffer when using critical pathways. (I) In more recent literature, continuity of care has been under consideration in the development of critical pathways. The critical pathway is an intervention that should be implemented by a multidisciplinary team in different phases of care (Vanhaect 2007).

5.2 Important factors and their realisation in continuity of care

Orientation phase I (2001-2005)

The purpose of this part was to describe day surgical patients' perceptions of important factors and their implementation in different phases of critical pathways. Data were gathered by interviewing 25 day surgically operated patients. Several important factors in continuity of care were identified. In time flow, patients considered the total schedule of their treatment, initial admission and follow-up as the most important factors. In coordination flow, the patients indicated self-steering and the functionality of the pathway as being important. In caring relationship flow, patients wanted to feel safe and receive individual treatment. In information flow, patients evaluated self-initiated information seeking and information from professionals as being important.

Evaluation phase II (2006-2015)

The purpose of this part was first to describe the realisation of the continuity of care from the day surgery patients' own perspective and secondly, to analyze the perceptions of nurses working in day surgery units in terms of how they think that the continuity of patients' care is realized. Data were gathered by questionnaire from 203 day surgically operated patients and 83 nurses. Based on the results, total continuity of care was well realized. Among these patients the mean value of the total continuity of care sum score was 4.23 (Md 4.33, SD=0.47). The highest mean value was seen in information flow 4.53 (Md 4.66, SD=0.51). This mean score was significantly ($p<0.001$) higher than all the others. In timing of the care the mean value of the time flow sum score was 4.27 (Md 4.44, SD=0.65), which was significantly ($p<0.001$) higher than caring relationship flow score and significantly lower than information flow sum score. The mean value of the coordination flow sum score was 4.37 (Md 4.44, SD=0.55), which was significantly ($p<0.001$) higher than caring relationship flow score and significantly lower than information flow sum score. The mean value of the caring relationship flow sum score was 3.73 (Md 3.66, SD=0.78). The caring relationship flow had the lowest mean; it was significantly ($p<0.001$) lower compared to all the other sum scores. (III.)

Continuity of care is improved by patients being acquainted with the nurse caring for them at the hospital prior to the day of procedure, and by patients having the opportunity to meet the same nurse after the procedure as well. Meeting the surgeon who performed the procedure afterwards also has a positive effect on perceived continuity of care. The patients were rarely acquainted with the nurse caring for them prior to the operation (20% of the respondents), while the surgeon performing the procedure was familiar to them slightly more often (36% of the respondents). In this study, more than half of the patients (58%) had had a preoperative visit. (III)

The background variables examined are connected to the achievement of continuity of care. The time flow of care was connected to how quickly the respondents had been admitted to have the procedure, whether they met the nurse after the procedure, and whether they required additional guidance at home. The care relationship flow was better achieved in the opinion of those who were admitted to have the procedure in less than 3 months and who required no additional guidance at home following the procedure. Coordination flow was connected to how quickly the respondents had been admitted to have the procedure, whether they were acquainted with the nurse caring for them prior to the procedure, and how they had recovered from the operation. Coordination flow was deemed better if the nurse caring for the patient was familiar (the patient knew who the nurse caring for him or her was), if the procedure took place in less than 3 months, and if recovery had proceeded as expected. Caring relationship flow was connected to the procedure, discussion prior to the procedure, acquaintance with the nurse and surgeon (the patient knows the nurse and surgeon caring for him or her), meeting the surgeon after the procedure, and the need for additional guidance

at home. The caring relationship was more successful in the opinion of patients who had undergone cholecystectomy, who had been to discuss the operation prior to the procedure, who were acquainted with the nurse and surgeon caring for them prior to the procedure, who met with the surgeon after the procedure, and who required no additional guidance at home after the procedure. The achievement of information flow was connected to whether the respondents were acquainted with the nurse caring for them prior to the procedure, and how they had recovered from the operation. Information flow was carried out more successfully in the opinion of those acquainted with the nurse caring for them and those whose recovery had proceeded as expected. (III.)

In the nurses' opinion, continuity of the patients' care is generally achieved well. The mean value of the total continuity of care sum score was 3.91 (Md 3.94, SD=0.47). There were slight differences in the means of the flows, but they were not significant. The highest mean was seen in information flow, where the mean value of the sum score was 3.96 (Md 4.00, SD= 0.60). The lowest mean was seen in coordination flow, where the mean value of the sum was 3.86 (Md 3.89, SD= 0.53). (IV.)

In the nurses' data, the background variables were examined in relation to the total sum score of continuity of care and the sum variables. The achievement of continuity of care was connected to certain background factors. Age, work experience, patient guidance, and work-related duties were connected to the nurses' views on the achievement of continuity in the patient's care. Statistically significant connections were found between the background variables and continuity of care as a whole, and between the components of time flow, coordination flow, caring relationship flow, and information flow. (IV.)

The nurses' assessments regarding the success of continuity of care (time flow, coordination flow) appeared to improve with the nurses' age; on the other hand, less work experience correlated with more positive assessments. In terms of caring relationship flow, the best evaluations were provided by those who had been at their job the longest. On the other hand, nurses with less experience of working in day surgery may assess the continuity of care as more successful. According to the study findings, when intraoperative care was not part of the respondents' duties, their assessment of coordination flow was more positive than that of those involved in intraoperative care. These findings are explained by the nurses not involved in intraoperative care serving as so-called queue nurses, meaning that they manage the patients' operation queue without participating in practical patient care. This might make them prone to deem the coordination flow of care as more successful. (IV.)

CRITICAL PATHWAYS AND CONTINUITY OF CARE (I and Summary)

- Critical pathways and the use of them improves continuity of care.

REALISATION OF CONTINUITY OF CARE (II,III,IV and Summary)

- Several important factors in continuity of care were identified. The important factors were identified in categories of continuity of care: time flow, coordination flow, caring relationship flow and information flow.
- Continuity of care is mostly well realized. Among patients the total continuity of care sum score was 4.23. Among nurses the total sum score was 3.91.
- The achievement of continuity of care was connected to several background factors. In patients' opinion the continuity of care were better realized when they knew who were caring for them. Age, work experience, patient guidance, and work-related duties were connected to the nurses' views on the achievement of continuity in the patient's care.

IMPROVEMENT OF CONTINUITY OF CARE (III,IV)

- From patients' viewpoint there is need for development of continuity of care on the areas of time flow and care relationship flow.
- From nurses' viewpoint there is need for development in the areas of time flow, care relationship flow and information flow. Especially before and after day surgery.

Figure 3. Summary of the results

6. DISCUSSION

This chapter discusses the main results and the validity and reliability of the study. In addition, suggestions for further research and implications for developing the continuity of patient care in day surgery are presented.

6.1 Discussion of results

The premise of the study was based on an overview of literature concerning critical pathways. The overview described how critical pathways influences continuity of care. Based on the review, the implementation of critical pathways has mostly a positive impact on patient care: it improves the continuity of care, continuity of information and continuity of patient education. (I). There are also other positive impacts of the implementation of critical pathways, especially from the perspective of health care organizations. They have a positive impact of the organization of care processes. Pathways also have a positive impact on the coordination and follow-up of care. (Vanhaect et al. 2009.) It is important in day surgery to improve clinical practices and routines, such as discharge criteria, guidelines and critical pathways (Rosen et al. 2014). Continuity of care can be improved when critical pathways are documented and everyone, i.e. both patients and healthcare professionals, know where the care continues and by whom it is provided. Clinical practices and routines such as discharge criteria, guidelines and critical pathways can be improved in day surgery (Rosen et al. 2014). This study examined the connection between critical pathways and continuity of care. A positive correlation was found in the literature. Critical pathways promote patient satisfaction with care, patient guidance, continuity of care, and quality of care. (I) This study focused on the day-surgery process, which is why the study proceeded using the term 'continuity of care'. Critical pathways influenced continuity of care. In next phase, the focus was in the day surgery patients and for investigating the perspective of patients themselves as well as professionals/ nurses, a broader concept of continuity of care was used.

In the orientation phase of the study, the premise of the study was established by describing factors important to patients based on interviews. Important factors can be identified in each of the four flows. Based on the interviews, patients are able to name factors important in terms of their care and its continuity. This is a particularly important observation given the current emphasis on a patient-centered approach and on patients' own views on their care. In time flow, patients considered the total schedule of their treatment, initial admission and the follow up as the most important. (II.) This finding is supported by earlier studies. For example, total schedule of patient treatment has been previously found to be an important factor in terms of meeting patients' care expectations (Freeman & Denham 2008). In coordination flow, patients valued self-steering and the functionality of the critical pathway (II). In the area of this flow, there seem to be problems

in the coordinating, as also seen in earlier studies (Otte 1996, Berg 2012, Mitchell 2014). Patients seem to be especially lacking in self-care skills so that they are not able to manage their own care (Berg 2012). Coordination can also be difficult due to the lack of a model of continuity of care (Mitchell 2003, Crilly et al. 2006). In the clinical practice of this study, there was not specific model of continuity within the organizations - this may have had an impact on the results of this study.

In terms of caring relationships, it is important that nurses treat patients individually and safely. However, there seem to be too many caring relationships. (II.) Primary nurse was also mentioned as being important, in line with an earlier study (Rhodes et al. 2006). Patients would also like to have a closer relationship with the nurses after the operation (Dewar et al. 2004, Bäckström et al. 2006, Mitchell 2010, Mitchell et al. 2013). According to earlier studies, safe and satisfactory patient care calls for a continuous multiprofessional approach (Stomborg et al. 2008). In the information flow, self-initiated information and information from professionals deemed important. Patients found it important to search for information by themselves. In practice they found information from the internet, libraries and patient information leaflets. (II.) According to earlier studies it is important that patients have sufficient knowledge about the coming operation, how to prepare for it and also how to take care of themselves after the operation (Mitchell 2007, Bellani 2008, Berg 2012).

Patients also brought up areas in day surgery care that are in need of development. According to the patients the resources in day surgical patients' care should be allocated better. Patients were worried about the Finnish economy and how the money is allocated in health care. Patients wanted to develop postoperative care further. They also expected some kind of postoperative control. This would ensure, in a more flexible manner, that care procedures that may still be required are carried out. (II.)

Realisation of continuity of care was investigated with the questionnaire (III). One of the main results is that according to patients' experiences the continuity of care is well realized. As for time flow, patients felt that they did not have to wait unnecessarily on the day of operation and there was a clear schedule of treatment in all phases of care. (III.) Previous studies have produced findings to the contrary, as patients have been particularly dissatisfied with long waiting times (Gilmartin & Wright 2008). For the realisation of coordination flow, patients have to be active in order to get the treatment they need and patients have to be self-motivated (III). The self-caring ability is supported by previous studies (Otte 1996, Mitchell 2004, Berg 2012). The results from the questionnaire support earlier studies and their main principles of patients' self-care (Berg et al. 2013) and care provided by family members (Mitchell 2003, Boughton & Halliday 2009, Mottram 2011b, Berg 2012, Majholm et al. 2012).

In realisation of caring relationship flow, patients expect more from their caring relationship with healthcare professionals. As evaluated by patients, continuity of care is improved by the fact that the patients know the nurse who will look after them in the day

surgical unit before the day of surgery, and the surgeon who will operate on them. On the day of the operation patients felt that the treating nurse and physician took their matters in hand. (III.) According to earlier studies, the caring relationship can be improved by arranging a meeting between the patient and surgical nurse both prior to and after the operation (Lindwall et al. 2003, Bäckström et al. 2006, Stomborg et al. 2008). In earlier studies, patients' expectations regarding the caring relationship were not met (Majasaari et al. 2007). In earlier studies patients have also expressed a need to meet the operating surgeon both before (Barthelsson et al. 2003, Gilmartin & Wright 2008, Barthelsson 2009) and after the operation (Barthelsson 2009). Continuity of care can be improved by a postoperative meeting between patients and those who cared for them (Bäckström et al. 2006).

In the realisation of information flow, patients received information about their care (III). This is an important finding because sufficient access to information promotes patients' capacity for self-care (Berg et al. 2013, Mitchell 2014). Information and documents related to patients' care were also systematically transferred from one unit to another during the day of the operation. Information regarding care received by the patient on the one hand and regarding the transfer of information itself on the other hand was not carried out in a satisfactory manner after the operation. (III.) In the future, attention should be paid to transfer of information in the time period after the operation, as the orientation of the patient to day surgery care calls for information about the operation and also about the course after the operation to be given to the patient before the operation (Stomborg et al. 2008).

In information flow, attention must be paid to findings indicating that the critical pathway has been found to function better, along with increased patient satisfaction, when the patient has a preoperative visit immediately following the decision to operate (Fraczyk & Godfrey 2010). A visit to the day surgery unit prior to the operation has also been found to improve access to information (Gilmartin 2004, Fraczyk & Godfrey 2010). On the other hand, there are study findings indicating that with orthopedic patients, an Internet program and guidance could be substituted for a visit to the day surgery unit (Heikkinen 2010). The time of receiving information played a part as well, since information provided at the right time has been found to enhance the absorption of information (Rhodes et al. 2006, Gilmartin 2007, Bellani 2008). Patients absorb information better when it is received prior to the day of operation. Coordination and information flows had a strong correlation, meaning that when care is coordinated well, even access to information is achieved, and vice versa (III).

Continuity of care was relatively well realized in the field of all four flows also from the nurses' perspective. Information flow was the aspect that was best realized in care continuity. Evaluated by nurses, in time flow patients are compelled to wait for admittance to surgery at the day surgical unit. (IV.) The views of nurses and patients differed on this (in the survey). In order to keep patients up-to-date about the expected surgical times and potential delays nurses can improve the continuity of patients' care

(Freeman et al. 2008). In coordination flow, places providing care do not always engage in systematic cooperation and patients must be active in order to obtain information prior to surgery (IV), as also indicated by Moss and Xiao (2004). In the realisation of caring relationship the patients do not know preoperatively who will take care of them on the day of operation (IV). One way to improve the caring relationship is to improve the perioperative dialogue between nurses and patients (Lindwall & Von Post 2009).

An interesting finding in the data was that continuity (time flow, information flow) was assessed as least successful by nurses with no clear opinion regarding the patient's need for additional guidance. As a tentative conclusion, the nurses in question might not be well enough acquainted with the patients and their situations, leaving their views on continuity unclear as well. (IV.) This has relevance for the continuity of care. In previous studies, nurses' limited teaching aids, language barriers and lack of time had prevented nurses from giving guidance to day surgical patients (Chen et al. 2007, Tse & So 2008).

The nurses considered that continuity of care was most poorly realized after the day of surgery at home. Is that really how the continuity of care is realized? Or is it so that nurses do not know how patients and their relatives can take care of them at home? According to nurses' perceptions time flow, coordination flow and caring relationship flow should be improved both before and after the operation. Knowledge about the treatment chain should be further developed so that nurses have a better understanding of the elements of continuity of care. (IV.)

In the field of improvement of continuity of care, patients wish for smoother preparation during the period leading up to the operation (III). Patients also wish to have more rapid admittance to operation (Gilmartin & Wright 2008). During the period following the operation more systematic cooperation between different treatment units needs to be developed (III, IV, Berg et al. 2013). During the period leading up to the operation patients want to know the treating nurse and physician and they should take care of patients' matters. Knowledge about who is responsible for the patients' care in different phases is also in need of development (III, Barthelsson 2009). During the period following the operation information about patients' treatment (Mottram 2011b) and transfer of documents has to be developed as well. (III.) There is also need of support for self-care (Berg et al. 2013). In future, different ways to improve patient-centered care must be developed in order to achieve better continuity of patients' care. Continuity of care is a cornerstone in patient-centered care (Bentler et al. 2013). It is important that patients and nurses understand what day surgery entails and healthcare personnel have to teach that after day surgery it takes time for patient to recover (Mottram 2011c). A way to improve continuity of care is standardization and streamlining, by a common agreement, of critical pathways and treatment chains by all healthcare professionals participating in patient care of different diagnosis- related groups. (III.)

In this study continuity of care refers to the connectedness along the patient pathways. The continuity categories in this study were time flow, coordination flow, caring

relationship flow and information flow. The aforementioned flows were used to examine the realisation of continuity of care in day surgery care.

6.2 Trustworthiness, validity and reliability of the study

The strength of this study arguably lies in the multitude of methods used to examine continuity of patients' care (Roberts et al. 2006, David & Sutton 2010). In the orientation stage, the first step was to perform an overview of literature regarding the effect of critical pathways on the continuity of care. In this phase, also patients were interviewed in order to chart factors important to them in terms of continuity of care. In the evaluation phase, the views of patients and nurses regarding continuity of care were charted. The aforementioned multimethodological methods were used to study continuity of care and the degree to which continuity is achieved (David & Sutton 2010).

The adequacy of the research was examined by assessing the validity and reliability of the research process. Validity and reliability are also the most important criteria in evaluating the quality of the study. Validity refers to the extent to which a variable measures the theoretical concept that this is supposed to measure. Reliability refers to the extent to which an instrument in repeated measures gets results in similar fields. (Roberts et al. 2006.)

In orientation phase I a systematic literature analysis of critical pathways was conducted (I, Summary). The purpose was to find out how the use of critical pathways influences continuity of care. The review was conducted by using 2 databases, Medline and Cinahl. Those two databases has been used for performing literature reviews (Flemming & Briggs 2006). Non-empirical articles were excluded from this analysis even though they might have revealed important aspects about critical pathways and their use. The criteria of including and excluding the studies were developed and followed, that enhanced the validity of the review process (Evans 2001).

In orientation phase I data were collected by focused interviews (II). This was a useful approach to find out how the patients organize their ideas on a particular topic (Shenton 2004, Burns & Grove 2009). The patients' perceptions of important factors in continuity of care were in the focus of research. Confirm ability was verified by documentation of the process step by step. The same person (MR) both interviewed the patients and analyzed the data. Interview themes were tested before collecting the actual data. All Finnish-speaking patients scheduled to undergo a laparoscopic cholecystectomy or hernia operation during a certain period of time were selected for the study. The interview was voluntary for the patients. An informed consent regarding participation in the study was obtained in writing. The patients were interviewed in a quiet location without disruptive factors. A risk in terms of credibility is that the study subjects may tell the study author what they believe he or she wants to hear. In this regard, it is good that the researcher was an outsider to the operational organization.

In evaluation phase II an instrument to measure continuity of care were developed, due to the lack of suitable existing instrument. When evaluating the validity of an instrument, four aspects should be considered: face validity, content validity, criterion-related validity and construct validity (Polit & Beck 2008) and these were taken in account in this study. The patient questionnaire survey was carried out first, with the nurse questionnaire modified from it with minor changes. Content validity of the instrument was based on literature review, an interview study (Renholm et al. 2009), and two pilot studies (patient and nurse groups, n=20). The instrument was pretested with respondents who were as corresponding as possible with those in main data. Content validity of the concepts used in this study was also tested by a group of doctoral students (nursing science program). A larger sample would have enabled examination of the instrument's construct validity using factor analysis, for example. On the other hand, the group of respondents and the data may be considered sufficiently representative as statistically significant and relevant findings were obtained. Reliability, measured by Cronbach's alpha, indicated good consistency (Roberts et al. 2006, Burns & Grove 2009, Connelly 2011). The Cronbach alpha coefficients for the scales ranged from 0.67 to 0.89 and alpha for the total sum continuity of care was 0.89. These alpha levels may be considered adequate for a new instrument (Connelly 2011). In future use, however, there is need for further analysis of psychometrics of the instrument.

Questions regarding the sample affect the generalization of the study findings (David & Sutton 2010, Burns & Grove 2009). The data in evaluation phase were gathered from only one of the 20 hospital districts in Finland. On the other hand, the data were gathered from five different hospitals in the district (containing a total of six hospitals), two of which were university central hospitals and three regional hospitals. The pilot data were gathered at a regional hospital in another hospital district. The patient sample consisted of all patients having undergone an inguinal hernia or cholecystectomy operation during a specific time period. The patients participating in the study filled in the questionnaire at home, which on the one hand had the effect of allowing the patients to respond in their own time, but, on the other hand, decreased the response rate (Burns & Grove 2009) (response rate 58 %). The nurses' sample consisted of nurses working in day surgery units. The study sample in this study consisted of nurses participating in the care of day surgery patients. The nurses filled in the questionnaire at work. This might have affected the response rate in two ways. On the one hand, it may have caused the response rate to rise; on the other hand, the opportunity for the study subjects to hand in a blank questionnaire form if desired might have lowered the response rate. The study author aimed to coach the contact persons for the study so as to enable them to provide more information regarding the study. The final response rate for nurses were 69% (n=83). A limitation of this study is also that it was conducted with quite a small number of nurses in one country (David & Sutton 2010). In future, more generalizable knowledge is needed to develop patient continuity of care further. On the other hand, the respondent sample and the data can be considered sufficiently representative, since the study provided statistically significant findings.

The sample size needed for the study was assessed based on the findings of the pilot study and on power calculations. The patients' sample size was based on power analysis indicating a sample size of 216. The calculations were based on data from the pilot study, medium effect size of 0.5 and power 0.80. Significance level 0.01 was used because of multiple comparisons. (Polit & Beck 2008.) All together 203 patients participated in the study, which was very close to the power-calculation target of 216. The findings of the study were statistically significant as well as relevant, suggesting that the sample sizes can be considered sufficient and large enough for statistical analyses.

This study dealt with continuity of care. This study was retrospective and therefore based on the memories of the participants of how the continuity of care was realized. This could be a problem for the reliability of the results. On the other hand the day surgery care chain is quite short in most cases and therefore it should be well remembered. That's why we ended up with this retrospective study. For better reliability of this study were the data gathered from both patients and nurses. Those two different views could be better matched in the future to get a better picture of the total continuity of care.

6.3 Suggestions for clinical practice

Based on the findings, the following suggestions for clinical practice can be presented:

1. In developing patient-centered care, elements of care that are significant to patients must be taken into consideration. In order to develop continuity of care, success in the categories of continuity of care must be assessed systematically and in cooperation with patients in terms of the entire care chain. It should be noted that factors considered important in care may be a subject to change, and health care organizations must therefore constantly monitor patients' views and perceptions of continuity of care. For example, a review board comprising patients could be devised to develop and evaluate care chains in day surgery, assessing the continuity of day surgery care on a regular basis and serving as support for e.g. nursing administrators.
2. In terms of time flow, patients find scheduling important, along with waiting times for being admitted to care not growing too long prior to the day of surgery. Regarding time flow, care should be scheduled so that the patient knows what to expect during each stage of treatment and how long he or she has to wait for the operation.
3. In terms of care coordination, day surgery care as a whole should be coordinated so that those concerned (both the patient and nursing staff) know where and how the patient is being treated. In addition, the different care units must be able to cooperate. This will be facilitated in the future by new developments such as technological solutions (patient chart).

4. In the future, patients will be able to choose their place of care (Ministry of Social Affairs and Health 2014b). It is important for patients to know the people who work within the organization, and even to get to meet them before choosing their place of care.
5. In terms of care relationships, patients should be guaranteed that during the time they are treated at a day surgery unit, they are known and recognized, and they can rely on the continuity of the care they receive.
6. The patient's postoperative period should receive particular attention. Measures must be taken to ensure that the entire process works, cooperation functions on all levels and in all units of care, and that e.g. the same instructions, materials, and programs are used throughout. Regarding postoperative information, there is room for improvement in terms of recognizing the patient's need for and level of information.
7. According to the study findings, nurses' awareness of the patient's entire day surgery critical pathway was lacking in parts. In the future, this area of competence should be given extra attention in the form of training.

6.4 Suggestions for nursing research

This study is a health service and nursing science research. This study produced useful preliminary information regarding continuity of care in day surgery. In addition, the service system affects how continuity of care is achieved. Research regarding continuity of care is justified especially in the case of day-surgery operations, in which the pace of care is fast and the duration of care contacts is short. The patient must also be able to take responsibility for self-care. Only a few studies regarding day-surgery care from the viewpoint of continuity of care have been conducted in Finland. As a result, there is still reason to study continuity of care in day surgery.

The categories of continuity of care, time flow, coordination flow, care relationship flow and information flow could be studied in other patient groups also. Those groups could be for example dementia- or chronically ill patients.

As a topic for further research supporting the development of the service system, it is important to follow the patient's progress and continuity of care throughout the entire critical pathway, e.g. as a case study. This would mean gathering data in real time during each stage, e.g. during the patient's time in primary health care prior to the decision to operate, in specialized health care during surgical care, and in primary health care during possible postoperative control visits. In addition, research should focus on the views of multiprofessional team regarding continuity of a patient's care. And also in different stages of day surgery care, e.g. in primary health care.

On the other hand, it would be of interest to conduct an experimental intervention study regarding the care of day surgery patients and the continuity of their care. The study group could be studied for whether continuity of care requires human contact in order to succeed. The intervention could consist of e.g. a technological application, arranging patient contacts and guidance during different stages of care, e.g. as distance contacts. The technological application would be the operator to guarantee the continuity of patient care. The control group, for its part, would go through the traditional care chain for a day surgery patient in terms of contacts such as pre- and postoperative visits.

In the future, the instrument developed in this study should be developed further, tested and used also with other patient groups.

In realisation of continuity of care for a day surgery patient, attention must also be paid to whether patients receive equal care. Or should even factors and selection criteria other than e.g. the ASA criteria be taken into consideration in choosing patients for day surgery. Does the fact that patients' potential and resources for coping at home after the operation vary place them in unequal positions. Different patients have different circumstances and living conditions. Should the aforementioned factors be taken better into consideration in terms of equal treatment. In the future patients are free to choose the hospital where they want to be operated. It is possible that the patients makes the decision on the basis of the realisation of continuity of care. Therefore the continuity of patient care is a competitive thing in health care services.

6.5 Conclusions

Continuity of care consists of a number of important factors. In addition, the health service system plays a part in how continuity of care is realized. The results of this study has value in improving the health services system.

According to the results of this study, continuity of care is realized mostly well in day surgery. Still there is some room for development in continuity of care. From patients' viewpoint there is need for development on the areas of time flow and care relationship flow. Patients want to have the operation done quickly and they want to know the caring personnel taking care of them. From the nurses' viewpoint the best realisation was seen on the day of surgery. In the field of development, there is need to improve time flow, coordination flow and caring relationship flow.

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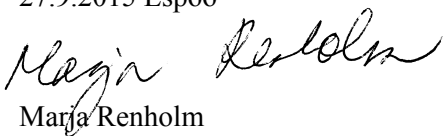
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27.9.2015 Espoo

A handwritten signature in black ink, appearing to read 'Marja Renholm', written in a cursive style.

Marja Renholm

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APPENDICES

Appendix 1. Kyselylomake potilaille

Appendix 1/1(9)

Turun yliopisto, Lääketieteellinen tiedekunta
Hoitotieteen laitos, Päiväkirurgisen potilaan hoidon jatkuvuus
Marja Renholm

KYSELYLOMAKE POTILAILLE

Päiväkirurgisen potilaan hoidon jatkuvuus

Arvoisa vastaaja

Tämän kyselylomakkeen avulla on tarkoitus kerätä tietoa siitä, miten *Te* olette kokenut *päiväkirurgisen hoitonne jatkuvuuden*. Kysymyksiin ei ole oikeaa tai väärää vastausta, vaan *Teidän* oma näkemyksenne asioista on tutkimuksen kohteena. Tarkoitus on, että vastauksenne koskevat noin viikko sitten tehdyn *päiväkirurgisen* toimenpiteen vuoksi toteutunutta hoitoanne. Tutkimus kohdistuu aikaan vaivojenne alkamisesta aina sovitun jälkitarkastukseen ja sairausloman loppumiseen saakka. Huomatkaa, että kysymyksissä on toistettu tietyt kysymykset ennen leikkausta olevista tapahtumista, leikkauspäivän tapahtumista ja leikkauksen jälkeisen ajan tapahtumista kotona. Näin saadaan tietoja kokemuksistanne hoidon jatkuvuudesta koko hoitoketjun ajalta.

A. Taustatiedot

Olkaa hyvä ja *ympyröikää* seuraavista *Teitä* parhaiten kuvaavan vaihtoehdon numero. Valitkaa kussakin kysymyksessä vain yksi vaihtoehto.

- | | | |
|---|--|---------------|
| 1. Sukupuolenne | Nainen | 1 |
| | Mies | 2 |
| 2. Ikänne vuosina | _____ | |
| 3. Siviilisäätynne | Naimaton | 1 |
| | Avoliitossa/ | |
| | Avoliitossa | 2 |
| | Eronnut | 3 |
| | Leski | 4 |
| 4. Ammatillinen koulutuksenne | Ei ammatillista koulutusta | 1 |
| | Kouluasteen ammatillinen koulutus | 2 |
| | Opistoasteen/ammattikorkeakoulun ammatillinen tutkinto | 3 |
| | Yliopistotutkinto | 4 |
| 5. Onko Teillä jokin terveydenhuoltoalan ammatillinen koulutus? | Kyllä | 1, mikä _____ |
| | Ei | 0 |

Appendix 1/2(9)

Turun yliopisto, Lääketieteellinen tiedekunta
 Hoitotieteen laitos, Päiväkirurgisen potilaan hoidon jatkuvuus
 Marja Renholm

- | | | |
|----------------------------------|---------------|---------------|
| 6. Työtilanteenne tällä hetkellä | Opiskelija | 1 |
| | Työssä kävijä | 2 |
| | Yrittäjä | 3 |
| | Työtön | 4 |
| | Eläkkeellä | 5 |
| | Muu | 6, mikä _____ |
-
- | | | |
|---|---------------|---|
| 7. Teille tällä kertaa tehty toimenpide | Tyräleikkaus | 1 |
| | Sappileikkaus | 2 |
-
- | | | |
|---------------------------------|-------|-------------------------|
| 8. Onko Teitä leikattu aiemmin? | Kyllä | 1, montako kertaa _____ |
| | Ei | 0 |
-
- | | | |
|---|-------|------------------|
| 9. Onko Teille aiemmin tehty päiväkirurgista toimenpidettä? | Kyllä | 1, montako _____ |
| | Ei | 0 |
-
10. Tämänkertaisesta päiväkirurgisesta toimenpiteestä on kulunut tänään _____ päivää (toimenpidepäivä mukaan lukien)
-
- Seuraavat kysymykset koskevat aikaa *kotona ennen* Teille tehtyä tämänkertaista päiväkirurgista toimenpidettä:**
-
- | | | |
|---|-------------------------------|---|
| 11. Pääsittekö lääkäriin kolmen päivän kuluessa tämän nyt päiväkirurgisen toimenpiteen vaatineen sairauden alkaessa oireilla? | Kyllä | 2 |
| | En | 1 |
| | En käynyt tuolloin lääkärissä | 0 |
-
- | | | |
|---|----------------------|----------------|
| 12. Mihin menitte lääkäriin tämän päiväkirurgisen toimenpiteen vaatineen sairauden alkaessa oireilla? | Terveyskeskukseen | 1 |
| | Yksityislääkärille | 2 |
| | Työterveyslääkärille | 3 |
| | Muualle | 4, mihin _____ |

Appendix 1/3(9)

Turun yliopisto, Lääketieteellinen tiedekunta
 Hoitotieteen laitos, Päiväkirurgisen potilaan hoidon jatkuvuus
 Marja Renholm

13. Pääsittekö polikliiniseen hoidon arvioon sairaalan poliklinikalle kolmen viikon kuluessa ensimmäisen lääkärikäynnin jälkeen?

Kyllä	2
En, vaan vasta myöhemmin	1
En käynyt tuolloin poliklinikalla	0

14. Oltiinko sairaalasta Teihin yhteydessä puhelimitse ennen päiväkirurgiseen toimenpiteeseen tuloanne?

Kyllä	1, miksi _____
Ei	0

15. Kävittekö sairaalassa päiväkirurgisessa yksikössä etukäteen keskustelemassa tulevasta toimenpiteestä?

Kyllä	1
En	0

16. Saitteko tietää ennen toimenpiteeseen tuloa

	Kyllä	En
- Kuka sairaanhoitaja Teitä hoitaa toimenpidepäivänä	1	0
- Kuka kirurgi Teille tekee toimenpiteen l		0
- Kuka anestesia lääkäri Teidät nukuttaa/ puuduttaa	1	0

17. Siirsittekö itse Teille annettua toimenpideaikaa?

Kyllä	1, miksi _____
En	0

18. Kuinka nopeasti pääsitte toimenpiteeseen? (sen jälkeen, kun toimenpide päätös oli lääkärin kanssa tehty?)

Alle 1 kuukaudessa	1
1-3 kuukaudessa	2
4-6 kuukaudessa	3
Yli 6 kuukaudessa	4

19. Kuinka nopeasti olisitte toivonut pääseväne toimenpiteeseen?

Alle 1 kuukaudessa	1
1-3 kuukaudessa	2
4-6 kuukaudessa	3
Yli 6 kuukaudessa	4

Appendix 1/4(9)

Turun yliopisto, Lääketieteellinen tiedekunta
 Hoitotieteen laitos, Päiväkirurgisen potilaan hoidon jatkuvuus
 Marja Renholm

20. Tapahteko toimenpiteen jälkeen sairaalassa	Kyllä	En
- Sairaanhoidajan, joka hoiti Teitä ennen toimenpidettä	1	0
- Kirurgin, joka teki Teille toimenpiteen	1	0
- Anestesia- lääkärin, joka nukutti/ puudutti Teidät	1	0

21. Soitettiinko Teille toimenpiteen jälkeisenä päivänä päiväkirurgisesta yksiköstä?	Kyllä	1
	Ei	2

Vastausvaihtoehdot seuraavissa kysymyksissä ovat:

5. täysin samaa mieltä
4. osittain samaa mieltä
3. en samaa enkä eri mieltä
2. osittain eri mieltä
1. täysin eri mieltä

22. Olette toipunut nyt tehdystä toimenpiteestä odotustenne mukaisesti	5	4	3	2	1
23. Teillä oli lisäohjauksen tarvetta toimenpiteen jälkeen kotona	5	4	3	2	1

Vastatkaa seuraavaan kysymykseen vain, jos Teillä oli poistettavat ompeleet

24. Missä Teiltä poistettiin/ poistetaan ompeleet	Terveyskeskuksessa	1
	Työterveysshuollossa	2
	Yksityisellä lääkäriasemalla	3
	Muulla, missä _____	4

Appendix 1/5(9)

Turun yliopisto, Lääketieteellinen tiedekunta
 Hoitotieteen laitos, Päiväkirurgisen potilaan hoidon jatkuvuus
 Marja Renholm

B. Hoidon ajallinen kulku

Vastatkaa seuraaviin kysymyksiin ympyröimällä numero, joka omasta mielestänne parhaiten kuvaa hoitonne ajallista etenemistä. Kysymyksiin ei ole oikeaa tai väärää vastausta, vaan *Teidän* oma näkemyksenne asioista on tutkimuksen kohteena.

Vastausvaihtoehdot seuraavissa kysymyksissä ovat:

5. täysin samaa mieltä
4. osittain samaa mieltä
3. en samaa enkä eri mieltä
2. osittain eri mieltä
1. täysin eri mieltä

25. Jouduin mielestäni odottamaan toimenpiteeseen liittyviä valmisteluja liian pitkään ennen toimenpidettä	5 4 3 2 1
26. Jouduin mielestäni odottamaan liian pitkään toimenpiteeseen pääsyä toimenpidettä	5 4 3 2 1
27. Jouduin mielestäni odottamaan sairaalassa liian pitkään kotiin pääsyä toimenpiteen jälkeen	5 4 3 2 1
28. Hoidossani oli selkeä aikataulu ennen toimenpidettä	5 4 3 2 1
29. Hoidossani oli selkeä aikataulu toimenpidettä	5 4 3 2 1
30. Hoidossani oli selkeä aikataulu toimenpiteen jälkeisenä aikana	5 4 3 2 1
31. Minun piti olla itse omaaloitteinen saadakseni ajan toimenpiteeseen	5 4 3 2 1
32. Minun piti olla itse omaaloitteinen toimenpidettä saadakseni hoitoni ajallaan	5 4 3 2 1
33. Minun piti olla itse omaaloitteinen toimenpiteen jälkeen saadakseni tarvitsemäni jälkiseurannan ajallaan	5 4 3 2 1

Appendix 1/6(9)

Turun yliopisto, Lääketieteellinen tiedekunta
 Hoitotieteen laitos, Päiväkirurgisen potilaan hoidon jatkuvuus
 Marja Renholm

C. Hoidon sujuvuus

Vastatkaa seuraaviin kysymyksiin ympyröimällä hoitonne sujumista parhaiten kuvaava numero.

Vastausvaihtoehdot seuraavissa kysymyksissä ovat:

5. täysin samaa mieltä
4. osittain samaa mieltä
3. en samaa enkä eri mieltä
2. osittain eri mieltä
1. täysin eri mieltä

34. Toimenpiteeseen liittyvät valmistelut oli hyvin järjestetty ennen toimenpidepäivää	5 4 3 2 1
35. Hoitoni oli hyvin järjestetty toimenpidepäivänä	5 4 3 2 1
36. Jälkiseuranta oli hyvin järjestetty toimenpiteen jälkeisenä aikana	5 4 3 2 1
37. Eri hoitopaikat (esimerkiksi terveyskeskus ja sairaala) toimivat suunnitelmallisesti yhteistyössä ennen toimenpidepäivää	5 4 3 2 1
38. Eri hoitopaikat toimivat suunnitelmallisesti yhteistyössä toimenpidepäivänä (esimerkiksi leikkaussali ja heräämö)	5 4 3 2 1
39. Eri hoitopaikat toimivat suunnitelmallisesti yhteistyössä toimenpiteen jälkeisenä aikana (esimerkiksi sairaala ja terveyskeskus)	5 4 3 2 1
40. Minun piti olla itse oma-aloitteinen, jotta hoitoni oli sujuvaa ennen toimenpidepäivää	5 4 3 2 1
41. Minun piti olla itse oma-aloitteinen, jotta hoitoni oli sujuvaa toimenpidepäivänä	5 4 3 2 1
42. Minun piti olla itse oma-aloitteinen, jotta hoitoni oli sujuvaa toimenpiteen jälkeisenä aikana	5 4 3 2 1

Appendix 1/7(9)

Turun yliopisto, Lääketieteellinen tiedekunta
 Hoitotieteen laitos, Päiväkirurgisen potilaan hoidon jatkuvuus
 Marja Renholm

D. Hoitosuhteen kulku

Vastatkaa seuraaviin kysymyksiin ympäröimällä hoitosuhdetanne terveydenhoitohenkilöstöön parhaiten kuvaava numero

Vastausvaihtoehdot seuraavissa kysymyksissä ovat:

5. täysin samaa mieltä
4. osittain samaa mieltä
3. en samaa enkä eri mieltä
2. osittain eri mieltä
1. täysin eri mieltä

43. Minua hoitava sairaanhoitaja otti asiani hoitaakseen ennen toimenpidepäivää	5	4	3	2	1
44. Minua hoitava sairaanhoitaja otti asiani hoitaakseen toimenpidepäivänä	5	4	3	2	1
45. Minua hoitava sairaanhoitaja otti asiani hoitaakseen toimenpiteen jälkeisenä aikana	5	4	3	2	1
46. Minua hoitava lääkäri otti asiani hoitaakseen ennen toimenpidepäivää	5	4	3	2	1
47. Minua hoitava lääkäri otti asiani hoitaakseen toimenpidepäivänä	5	4	3	2	1
48. Minua hoitava lääkäri otti asiani hoitaakseen toimenpiteen jälkeisenä aikana	5	4	3	2	1
49. Minulle oli selvää ennen toimenpidepäivää, kuka vastaa hoidostani	5	4	3	2	1
50. Minulle oli selvää toimenpidepäivänä, kuka vastaa hoidostani	5	4	3	2	1
51. Minulle oli selvää toimenpiteen jälkeisenä aikana, kuka vastaa hoidostani	5	4	3	2	1

Appendix 1/8(9)

Turun yliopisto, Lääketieteellinen tiedekunta
 Hoitotieteen laitos, Päiväkirurgisen potilaan hoidon jatkuvuus
 Marja Renholm

E. Tiedonkulku

Vastatkaa seuraaviin kysymyksiin ympyröimällä numero, joka parhaiten kuvaa tiedonkulua hoitonne eri vaiheissa

Vastausvaihtoehdot seuraavissa kysymyksissä ovat:

5. täysin samaa mieltä
4. osittain samaa mieltä
3. en samaa enkä eri mieltä
2. osittain eri mieltä
1. täysin eri mieltä

52. Sain riittävästi tietoa toimenpiteeseen valmistautumisesta	5	4	3	2	1
53. Sain toimenpidepäivänä riittävästi tietoa hoidostani ja tehdystä toimenpiteestä	5	4	3	2	1
54. Sain toimenpiteen jälkeen riittävästi tietoa siitä, miten minun tulee toimia kotona toimenpiteen jälkeen	5	4	3	2	1
55. Minua koskevat tiedot ja asiakirjat siirtyivät suunnitelmallisesti hoitopaikasta toiseen ennen toimenpidepäivää	5	4	3	2	1
56. Minua koskevat tiedot ja asiakirjat siirtyivät suunnitelmallisesti hoitopaikasta toiseen (esimerkiksi leikkaussalista heräämöhön) toimenpidepäivänä	5	4	3	2	1
57. Minua koskevat tiedot ja asiakirjat siirtyivät suunnitelmallisesti hoitopaikasta toiseen toimenpiteen jälkeisenä aikana	5	4	3	2	1
58. Minun piti olla itse oma-aloitteinen ennen toimenpidettä saadakseni tarvittavaa tietoa tulevasta toimenpiteestä	5	4	3	2	1
59. Minun piti olla itse oma-aloitteinen toimenpidepäivänä saadakseni tietoa hoidostani	5	4	3	2	1
60. Minun piti olla itse oma-aloitteinen saadakseni tietoa toimenpiteen jälkeisestä hoidostani	5	4	3	2	1

Appendix 1/9(9)

Turun yliopisto, Lääketieteellinen tiedekunta
Hoitotieteen laitos, Päiväkirurgisen potilaan hoidon jatkuvuus
Marja Renholm

Seuraaviin kysymyksiin toivon Teidän antavan numeron:

61. Minkä kokonaisarvosanan annatte toteutuneesta hoidosta ennen toimenpiteeseen pääsyä (arviointiasteikko 1-5, jossa 1= heikko, 2=kohtalainen, 3=hyvä, 4= kiitettävä, 5= erinomainen)? _____

62. Minkä kokonaisarvosanan annatte toteutuneesta hoidosta toimenpidenä päiväkirurgisessa yksikössä (arviointiasteikko 1-5, jossa 1= heikko, 2=kohtalainen, 3=hyvä, 4= kiitettävä, 5= erinomainen)? _____

63. Minkä kokonaisarvosanan annatte toteutuneesta hoidosta toimenpiteen jälkeen terveyskeskuksessa/yksityislääkärillä/työterveyshuollossa (arviointiasteikko 1-5, jossa 1= heikko, 2=kohtalainen, 3=hyvä, 4= kiitettävä, 5= erinomainen)?
(esim. ompeleiden poisto) _____

64. Mitä haluaisitte kehittää päiväkirurgisessa hoidossa?

KIITOS VASTAUKSISTANNE!

TOIVOTAN TEILLE OIKEIN HYVÄÄ JATKOA!

Appendix 2. Kyselylomake sairaanhoitajille

Appendix 2 1(8)
 Turun yliopisto, Lääketieteellinen tiedekunta
 Hoitotieteen laitos, Päiväkirurgisen potilaan hoidon jatkuvuus
 Marja Renholm

KYSELYLOMAKE SAIRAANHOITAJILLE

Päiväkirurgisen potilaan hoidon jatkuvuus

Tämän kyselytutkimuksen tarkoituksena on kerätä tietoa siitä, miten Teidän mielestänne päiväkirurgisten potilaiden hoidon jatkuvuus on toteutunut. Tämä kyselylomake on pääasiassa samansisältöinen potilaille, sairaanhoitajille ja lääkäreille. Huomatkaa, että kysymyksissä on toistettu tietyt kysymykset ennen leikkausta olevista tapahtumista, leikkauspäivän tapahtumista ja leikkauksen jälkeisen ajan tapahtumista kotona. Näin saadaan tietoja potilaiden hoidon jatkuvuudesta koko hoitoketjun ajalta.

A. Taustatiedot

Olkaa hyvä ja *ympyröikää* seuraavista *Teitä* parhaiten kuvaavan vaihtoehdon numero. Valitkaa kussakin kysymyksessä vain yksi vaihtoehto.

1. Sukupuolenne

Nainen	1
Mies	2

2. Ikänne vuosina _____

3. Koulutuksenne (valitkaa korkein)

Sairaanhoitaja	1
Erikoissairaanhoitaja	2
Sairaanhoitaja AMK	3
Terveystieteiden/terveydenhuollon kandidaatti/maisteri	4
Muu	5, mikä _____

4. Nykyinen työsuhteenne

Vakituinen	1
Sijainen	2
Muu	3, mikä _____

5. Työssäoloaikanne terveydenhuollon perustutkinnon suorittamisen jälkeen?
 Sairaanhoitajana _____ vuotta, jos alle vuoden niin _____ kuukautta

6. Työssäoloaikanne nykyisessä työpaikassanne?
 _____ vuotta, jos alle vuoden niin _____ kuukautta

Appendix 2 2(8)
 Turun yliopisto, Lääketieteellinen tiedekunta
 Hoitotieteen laitos, Päiväkirurgisen potilaan hoidon jatkuvuus
 Marja Renholm

7. Työtehtäviinne kuuluu tällä hetkellä (ympyröikää kaikki sopiviksi katsomanne vaihtoehdot)	
Jonohoitajan tehtävät	1
Potilaan preoperatiivinen hoito	2
Potilaan intraoperatiivinen hoito	3
Potilaan postoperatiivinen hoito	4

Seuraavissa kysymyksissä kysytään Teidän käsitystänne päiväkirurgisten potilaiden hoidosta

Vastausvaihtoehdot seuraavissa kysymyksissä ovat:

5. täysin samaa mieltä
4. osittain samaa mieltä
3. ei samaa eikä eri mieltä
2. osittain eri mieltä
1. täysin eri mieltä

8. Potilaat pääsevät hoitotakuun mukaisesti perusterveydenhuollon ensiarvioon kolmen päivän kuluessa yhteydenotosta	5	4	3	2	1
9. Potilaat pääsevät hoidon arvioon sairaalan poliklinikalle kolmen viikon kuluessa lähetteen kirjoittamisesta	5	4	3	2	1
10. Potilaisiin ollaan yhteydessä puhelimitse päiväkirurgisesta yksiköstä ennen toimenpiteeseen tuloa	5	4	3	2	1
11. Potilaat käyvät sairaalan päiväkirurgisessa yksikössä etukäteen keskustelemassa tulevasta toimenpiteestä	5	4	3	2	1
12. Potilaat saavat tietää sairaalasta ennen toimenpiteeseen tuloa					
	Kyllä			Ei	
-Kuka sairaanhoitaja heitä hoitaa toimenpitepäivänä	1			0	
- Kuka kirurgi tekee heille toimenpiteen	1			0	
- Kuka anestesia lääkäri heidät nukuttaa/ puuduttaa	1			0	

Appendix 2 3(8)

Turun yliopisto, Lääketieteellinen tiedekunta
 Hoitotieteen laitos, Päiväkirurgisen potilaan hoidon jatkuvuus
 Marja Renholm

13. Kuinka nopeasti potilaat pääsevät toimenpiteeseen?	Alle 1 kuukaudessa	1
	1-3 kuukaudessa	2
	4-6 kuukaudessa	3
	Yli 6 kuukaudessa	4

14. Kuinka nopeasti potilaat toivovat pääsevänsä toimenpiteeseen?	Alle 1 kuukaudessa	1
	1-3 kuukaudessa	2
	4-6 kuukaudessa	3
	Yli 6 kuukaudessa	4

Vastausvaihtoehdot seuraavissa kysymyksissä ovat:

5. täysin samaa mieltä
4. osittain samaa mieltä
3. ei samaa eikä eri mieltä
2. osittain eri mieltä
1. täysin eri mieltä

15. Potilaat toivuvat päiväkirurgisesta toimenpiteestä odotustensa mukaisesti 5 4 3 2 1

16. Potilaille soitetaan leikkauksen jälkeisenä päivänä päiväkirurgisesta yksiköstä 5 4 3 2 1

17. Potilailla on lisäohjauksen tarvetta leikkauksen jälkeen kotona 5 4 3 2 1

18. Potilas tapaa toimenpiteen jälkeen sairaalassa	Kyllä	Ei
- Sairaanhoidajan, joka häntä hoiti ennen toimenpidettä	1	0
- Kirurgin, joka hänelle teki toimenpiteen	1	0
- Anestesia- <i>l</i> ääkärin, joka nukutti/ puudutti hänet	1	0

Appendix 2.4(8)
 Turun yliopisto, Lääketieteellinen tiedekunta
 Hoitotieteen laitos, Päiväkirurgisen potilaan hoidon jatkuuus
 Marja Renholm

B. Hoidon ajallinen kulku

Vastatkaa seuraaviin kysymyksiin ympyröimällä numero, joka omasta mielestänne kuvaa päiväkirurgisten potilaiden hoidon ajallista etenemistä tässä sairaalassa. Kysymyksiin ei ole oikeaa tai väärää vastausta, vaan *Teidän* oma näkemyksenne asioista on tutkimuksen kohteena.

Vastausvaihtoehdot seuraavissa kysymyksissä ovat:

5. täysin samaa mieltä
4. osittain samaa mieltä
3. ei samaa eikä eri mieltä
2. osittain eri mieltä
1. täysin eri mieltä

19. Potilaat joutuvat mielestänne odottamaan toimenpiteeseen liittyviä valmisteluja liian pitkään ennen toimenpidepäivää	5	4	3	2	1
20. Potilaat joutuvat mielestänne odottamaan liian pitkään toimenpiteeseen pääsyä toimenpidepäivänä	5	4	3	2	1
21. Potilaat joutuvat mielestänne odottamaan sairaalassa liian pitkään kotiin pääsyä toimenpiteen jälkeen	5	4	3	2	1
22. Potilaiden hoidossa on selkeä aikataulu ennen toimenpidepäivää	5	4	3	2	1
23. Potilaiden hoidossa on selkeä aikataulu toimenpidepäivänä	5	4	3	2	1
24. Potilaiden hoidossa on selkeä aikataulu toimenpiteen jälkeisenä aikana	5	4	3	2	1
25. Potilaiden tulee itse olla oma-aloitteisia saadakseen ajan toimenpiteeseen	5	4	3	2	1
26. Potilaiden tulee itse olla oma-aloitteisia toimenpidepäivänä saadakseen hoidon ajallaan	5	4	3	2	1
27. Potilaiden tulee itse olla oma-aloitteisia toimenpiteen jälkeen saadakseen tarvitsemansa jälkiseurannan ajallaan	5	4	3	2	1

Appendix 2.5(8)
 Turun yliopisto, Lääketieteellinen tiedekunta
 Hoitotieteen laitos, Päiväkirurgisen potilaan hoidon jatkuuus
 Marja Renholm

C. Hoidon sujuvuus

Vastatkaa seuraaviin kysymyksiin ympyröimällä päiväkirurgisten potilaiden hoidon sujumista parhaiten kuvaava numero. Hoidon sujuvuus tarkoittaa tässä hoidon yhteen järjestämistä sekä yhteistoimintaa.

Vastausvaihtoehdot seuraavissa kysymyksissä ovat:

5. täysin samaa mieltä
4. osittain samaa mieltä
3. en samaa enkä eri mieltä
2. osittain eri mieltä
1. täysin eri mieltä

28. Potilaiden toimenpiteeseen liittyvät valmistelut on hyvin järjestetty ennen toimenpidettä	5	4	3	2	1
29. Potilaiden hoito on hyvin järjestetty toimenpidettä	5	4	3	2	1
30. Potilaiden jälkiseuranta on hyvin järjestetty toimenpiteen jälkeisenä aikana	5	4	3	2	1
31. Potilaiden hoidossa eri hoitopaikat (esimerkiksi terveyskeskus ja sairaala) toimivat suunnitelmallisesti yhteistyössä ennen toimenpidettä	5	4	3	2	1
32. Potilaiden hoidossa eri hoitopaikat toimivat suunnitelmallisesti yhteistyössä toimenpidettä (esimerkiksi leikkaussali ja heräämö)	5	4	3	2	1
33. Potilaiden eri hoitopaikat toimivat suunnitelmallisesti yhteistyössä toimenpiteen jälkeisenä aikana (esimerkiksi sairaala ja terveyskeskus)	5	4	3	2	1
34. Potilaiden tulee itse olla oma-aloitteisia, jotta hoito on sujuvaa ennen toimenpidettä	5	4	3	2	1
35. Potilaiden tulee itse olla oma-aloitteisia, jotta hoito on sujuvaa toimenpidettä	5	4	3	2	1
36. Potilaiden tulee itse olla oma-aloitteisia, jotta hoito on sujuvaa toimenpiteen jälkeisenä aikana	5	4	3	2	1

Appendix 2 6(8)
 Turun yliopisto, Lääketieteellinen tiedekunta
 Hoitotieteen laitos, Päiväkirurgisen potilaan hoidon jatkuuus
 Marja Renholm

D. Hoitosuhteen kulku

Vastatkaa seuraaviin kysymyksiin ympyröimällä päiväkirurgisten potilaiden hoitosuhdetta terveydenhuoltohenkilöstöön parhaiten kuvaava numero

Vastausvaihtoehdot seuraavissa kysymyksissä ovat:

5. täysin samaa mieltä
4. osittain samaa mieltä
3. en samaa enkä eri mieltä
2. osittain eri mieltä
1. täysin eri mieltä

37. Otan potilaiden asiat hoitaakseni ennen toimenpidepäivää	5	4	3	2	1
38. Otan potilaiden asiat hoitaakseni toimenpidepäivänä	5	4	3	2	1
39. Otan potilaiden asiat hoitaakseni toimenpiteen jälkeisenä aikana	5	4	3	2	1
40. Potilaiden hoito on suunniteltu siten, että on selvää kuka vastaa potilaiden hoidosta ennen toimenpidepäivää	5	4	3	2	1
41. Potilaiden hoito on suunniteltu siten, että on selvää kuka vastaa potilaiden hoidosta toimenpidepäivänä	5	4	3	2	1
42. Potilaiden hoito on suunniteltu siten, että on selvää toimenpiteen jälkeisenä aikana kuka vastaa potilaiden hoidosta	5	4	3	2	1

Appendix 2.7(8)
 Turun yliopisto, Lääketieteellinen tiedekunta
 Hoitotieteen laitos, Päiväkirurgisen potilaan hoidon jatkuuus
 Marja Renholm

E. Tiedonkulku

Vastatkaa seuraaviin kysymyksiin ympyröimällä numero, joka parhaiten mielestänne kuvaa päiväkirurgisten potilaiden tiedonkulkua hoidon eri vaiheissa

Vastausvaihtoehdot seuraavissa kysymyksissä ovat:

5. täysin samaa mieltä
4. osittain samaa mieltä
3. en samaa enkä eri mieltä
2. osittain eri mieltä
1. täysin eri mieltä

43. Potilaat saavat riittävästi tietoa toimenpiteeseen valmistautumisesta	5	4	3	2	1
44. Potilaat saavat toimenpidepäivänä riittävästi tietoa hoidostaan ja tehdystä toimenpiteestä	5	4	3	2	1
45. Potilaat saavat toimenpiteen jälkeen riittävästi tietoa siitä, miten heidän tulee toimia kotona toimenpiteen jälkeen	5	4	3	2	1
46. Potilasta koskevat tiedot siirtyvät suunnitelmallisesti hoitopaikasta toiseen ennen toimenpidepäivää	5	4	3	2	1
47. Potilasta koskevat tiedot ja asiapaperit siirtyvät suunnitelmallisesti hoitopaikasta toiseen toimenpidepäivänä	5	4	3	2	1
48. Potilasta koskevat tiedot ja asiapaperit siirtyvät suunnitelmallisesti hoitopaikasta toiseen toimenpiteen jälkeisenä aikana	5	4	3	2	1
49. Potilaiden tulee itse olla oma-aloitteisia ennen toimenpidettä saadakseen tarvittavaa tietoa tulevasta toimenpiteestä	5	4	3	2	1
50. Potilaiden tulee itse olla oma-aloitteisia toimenpidepäivänä saadakseen tarvittavaa tietoa hoidostaan	5	4	3	2	1
51. Potilaiden tulee itse olla oma-aloitteisia saadakseen tietoa toimenpiteen jälkeisestä hoidosta	5	4	3	2	1

Appendix 2 8(8)
Turun yliopisto, Lääketieteellinen tiedekunta
Hoitotieteen laitos, Päiväkirurgisen potilaan hoidon jatkuvuus
Marja Renholm

Seuraavista asioista toivon Teidän antavan numeron:

52. Minkä kokonaisarvosanan annatte potilaan toteutuneesta hoidosta ennen toimenpiteeseen pääsyä (arviointiasteikko 1-5, jossa 1= heikko, 2=kohtalainen, 3=hyvä, 4= kiitettävä, 5= erinomainen)? _____

53. Minkä kokonaisarvosanan annatte potilaiden toteutuneelle hoidolle toimenpidepäivänä päiväkirurgisessa yksikössä pääsyä (arviointiasteikko 1-5, jossa 1= heikko, 2=kohtalainen, 3=hyvä, 4= kiitettävä, 5= erinomainen)? _____

54. Mitä haluaisitte kehittää päiväkirurgisessa hoidossa?

KIITOS VASTAUKSISTANNE!

TOIVOTAN TEILLE OIKEIN HYVÄÄ JATKOA!