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NURSING STUDENT-PATIENT RELATIONSHIP AND ASSOCIATED FACTORS

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Nursing student-patient relationship and associated factors

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ABSTRACT

The purpose of this study was to analyse the nursing student-patient relationship and factors associated with this relationship from the point of view of both students and patients, and to identify factors that predict the type of relationship. The ultimate goal is to improve supervised clinical practicum with a view to supporting students in their reciprocal collaborative relationships with patients, increase their preparedness to meet patients' health needs, and thus to enhance the quality of patient care.

The study was divided into two phases. In the first phase (1999-2005), a literature review concerning the student-patient relationship was conducted (n=104 articles) and semi-structured interviews carried out with nursing students (n=30) and internal medicine patients (n=30). Data analysis was by means of qualitative content analysis and Student-Patient Relationship Scales, which were specially developed for this research. In the second phase (2005-2007), the data were collected by SPR scales among nursing students (n=290) and internal medicine patients (n=242). The data were analysed statistically by SPSS 12.0 software.

The results revealed three types of student-patient relationship: a mechanistic relationship focusing on the student's learning needs; an authoritative relationship focusing on what the student assumes is in the patient's best interest; and a facilitative relationship focusing on the common good of both student and patient. Students viewed their relationship with patients more often as facilitative and authoritative than mechanistic, while in patients' assessments the authoritative relationship occurred most frequently and the facilitative relationship least frequently. Furthermore, students' and patients' views on their relationships differed significantly. A number of background factors, contextual factors and consequences of the relationship were found to be associated with the type of relationship. In the student data, factors that predicted the type of relationship were age, current year of study and support received in the relationship with patient. The higher the student's age, the more likely the relationship with the patient was facilitative. Fourth year studies and the support of a person other than a supervisor were significantly associated with an authoritative relationship. Among patients, several factors were found to predict the type of nursing student-patient relationships. Significant factors associated with a facilitative relationship were university-level education, several previous hospitalizations, admission to hospital for a medical problem, experience of caring for an ill family member and patient's positive perception of atmosphere during collaboration and of student's personal and professional growth. In patients, positive perceptions of student's personal and professional attributes and patient's improved health and a greater commitment to self-care, on the other hand, were significantly associated with an authoritative relationship, whereas positive perceptions of one's own attributes as a patient were significantly associated with a mechanistic relationship.

It is recommended that further research on the student-patient relationship and related factors should focus on questions of content, methodology and education.

Keywords: Clinical learning, nurse-patient relationship, nursing education, nursing student, patient participation

Arja Suikkala

Sairaanhoitajaopiskelija-potilassuhde ja suhteeseen yhteydessä olevat tekijät

Hoitotieteen laitos, Lääketieteellinen tiedekunta, Turun yliopisto

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TIIVISTELMÄ

Tutkimuksen tarkoituksena oli analysoida sairaanhoitajaopiskelijan ja potilaan välistä suhdetta ja suhteeseen yhteydessä olevia tekijöitä opiskelijoiden ja potilaiden näkökulmista. Lisäksi tarkoituksena oli tunnistaa tekijöitä, jotka ennustavat suhdetyyppejä. Tavoitteena on kehittää ohjattua harjoittelua, joka kannustaa opiskelijoita vastavuoroiseen yhteistyösuhteeseen potilaiden kanssa, lisää heidän valmiuksiaan vastata potilaiden terveystarpeisiin ja siten edistää potilaiden hoidon laatua.

Tutkimus toteutettiin kahdessa vaiheessa. Ensimmäisessä vaiheessa (1999–2005) opiskelijan ja potilaan suhdetta käsittelevä tieteellinen kirjallisuus (n=104) ja sairaanhoitajaopiskelijoiden (n=30) ja sisätautipotilaiden (n=30) teemahaastattelut analysoitiin laadullisella sisällön analyysillä. Kirjallisuuden ja haastatteluaineiston perusteella kehitettiin kyselylomakkeet (SPR scales) opiskelijoille ja potilaille. Tutkimuksen toisessa vaiheessa (2005–2007) aineisto kerättiin kyselylomakkeilla (SPR scales) sairaanhoitajaopiskelijoilta (n=290) ja sisätautipotilailta (n=242) ja analysoitiin tilastollisesti SPSS 12.0 -tilasto-ohjelmalla.

Tulosten mukaan opiskelija-potilassuhde oli joko mekanistinen, auktoritatiivinen tai helpottava. Mekanistisessa suhteessa korostuivat opiskelijan oppimistarpeet, auktoritatiivisessa suhteessa opiskelijan näkemys potilaan hyvästä ja helpottavassa suhteessa opiskelijan ja potilaan yhteinen hyvä. Opiskelijat arvioivat suhteen useammin helpottavana ja auktoritatiivisena kuin mekanistisena. Potilaat puolestaan arvioivat suhteen olevan useimmiten auktoritatiivinen ja vähiten usein helpottava. Lisäksi opiskelijoiden ja potilaiden näkemykset suhteesta erosivat merkittävästi toisistaan. Useat taustatekijät, kontekstuaaliset tekijät ja suhteen merkitykset olivat yhteydessä suhdetyyppiin. Opiskelija-aineistossa ikä, opiskeluvuosi ja opiskelijan saama tuki potilassuhteeseen liittyvissä asioissa ennustivat suhdetyyppejä. Helpottava suhde oli sitä todennäköisempi, mitä vanhemmasta opiskelijasta oli kyse. Neljännen vuoden opinnot ja muilta kuin opiskelijaohjaajalta saatu tuki olivat puolestaan merkittävästi yhteydessä auktoritatiiviseen suhteeseen. Potilas-aineiston perusteella useat tekijät ennustivat opiskelija-potilassuhdetyyppejä. Helpottavaan suhteeseen olivat merkittävästi yhteydessä yliopistotutkinto, useat aikaisemmat hoitojaksot sairaalassa, sairauden takia kutsuttuna hoidossa olo, kokemus sairaan perheenjäsenen hoitamisesta sekä potilaan myönteinen käsitys toimintailmapiiiristä ja opiskelijan persoonallisesta ja ammatillisesta kasvusta. Auktoritatiiviseen suhteeseen olivat merkittävästi yhteydessä potilaiden myönteiset käsitykset opiskelijan persoonallisista ja ammatillisista ominaisuuksista ja potilaan terveydentilan kohentumisesta ja itsehoitoon sitoutumisesta. Toisaalta potilaiden myönteinen käsitys itsestä potilaana oli merkittävästi yhteydessä mekanistiseen suhteeseen.

Jatkotutkimuksia opiskelija-potilassuhteesta ja siihen yhteydessä olevista tekijöistä ehdotetaan kohdennettavaksi sisällöllisiin, menetelmällisiin ja koulutuksellisiin kysymyksiin.

Asiasanat: Kliininen oppiminen, hoitaja-potilassuhde, hoitotyön koulutus, sairaanhoitajaopiskelija, potilaan osallistuminen

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ABBREVIATIONS

AC	Atmosphere during collaboration
AR	Authoritative relationship
ECTS	European Credit Transfer and Accumulation System
FR	Facilitative relationship
MR	Mechanistic relationship
PA	Patient's attributes as a patient
PCA	Principal component analysis
PH	Patient's improved health and commitment to self-care
SA	Student's personal and professional attributes
SC	Student's increased confidence and self-esteem
SG	Student's personal and professional growth
SPR scale	Student-patient relationship scale

LIST OF ORIGINAL PUBLICATIONS

This thesis is based on the following publications which are referred to in the text by the Roman numerals I–V:

- I** Suikkala, A. & Leino-Kilpi, H. 2001. Nursing student-patient relationship: a review of the literature from 1984 to 1998. *Journal of Advanced Nursing* 33, 42–50.
- II** Suikkala, A. & Leino-Kilpi, H. 2005. Nursing student-patient relationship: Experiences of students and patients. *Nurse Education Today* 25, 344–354.
- III** Suikkala, A., Leino-Kilpi, H. & Katajisto, J. Nursing student-patient relationships: A descriptive study of students' and patients' views. *International Journal of Nursing Education Scholarship* (accepted for publication).
- IV** Suikkala, A., Leino-Kilpi, H. & Katajisto, J. Factors related to the nursing student-patient relationship: The students' perspective. *Nurse Education Today* (in press).
- V** Suikkala, A., Leino-Kilpi, H. & Katajisto, J. Factors related to the nursing student-patient relationship: The patients' perspective. Resubmitted.

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1 INTRODUCTION

The objective of health care education is to ensure that those taking a degree in a regulated health care profession have the necessary competencies for the provision of population health services and the skills and knowledge required by patient safety (Asetus terveydenhuollon ammattihenkilöistä 564/1994; Laki terveydenhuollon ammattihenkilöistä 559/1994; Perälä & Ponkala 1999; Ponkala 2001; Heinonen 2003; Opetusministeriö 2006). The qualification requirements for nursing professions are based on the population's health needs and health policy guidelines, the goals set out in the Health 2015 programme, the skills requirements specified in international development recommendations and the development objectives for polytechnics (Sosiaali- ja terveysministeriö 2001, 2003; World Health Organization 2002; Ammattikorkeakoululaki 351/2003). The provision of high quality health services depends crucially on professional interaction and cooperation with patients and their families as well as with colleagues in multiprofessional teams (Paukkunen, Turunen, Taskinen, Sinkkonen & Tossavainen 2001; Paukkunen, Turunen, Tossavainen, Taskinen & Sinkkonen 2003; Opetusministeriö 2006). The importance of patients' own contribution to maintaining and promoting their health is highlighted in recommendations for the development of nursing practice. Indeed, the patient-oriented approach is emphasized in the national action programme as a key precondition for supporting patient involvement in decision-making that concerns their own personal situation. (Sosiaali- ja terveysministeriö 2003, 2007.)

In health care education, patients have traditionally been involved in teaching sessions. Patient involvement in students' clinical learning is recognized as centrally important to developing the skills that students need in order to work for the individual patient's good and thus to ensure the quality of care (Suikkala & Leino-Kilpi 2001). Every patient has the same rights regardless of whether they take part in professional health education. Their autonomy and self-determination must always be respected, and their care and treatment must accordingly be based on a mutual understanding. This also applies to situations where the patient participates in students' clinical learning. It must be made clear to the patient that students are involved in their care. Most importantly, the patient must not be pressured into making the decision to take part, but this must always be a genuinely voluntary decision. (Laki potilaan asemasta ja oikeuksista 785/1992; ETENE 2001; see also Ethical Guidelines of Nursing 1996.) Most patients seem to be willing to participate in student learning, but some are reluctant, particularly in nursing activities that involve intimate contact by a student (Morin, Pattersson, Kurtz & Brzowski 1999).

There are increasing examples of good practices of patient involvement in nursing education, mostly from the UK and the United States (e.g. King, Aamodt & Wolanin 1986; Twinn 1995; Morgan & Sanggaran 1997; Mossop & Wilkinson 2006). However, the differences in national health care systems must be considered in transferring these practices to clinical contexts in Finland (Ylipulli-Kairala & Lohiniva 2002). Research has highlighted a number of reasons why the student-patient relationship should be

given more attention in clinical practicum. Most significantly, students adopt appropriate attitudes and a patient-centred approach, learn to act as patients' advocates, and learn to involve patients in their care and provide care in partnership with them, taking account of their views (Le Var 2002). Students' relationships with patients are often beset by fears, anxieties and insecurities, however, and therefore their main concern is often focused on how to manage their own feelings and on how to develop high quality relationships with their patients (Spouse 2001). For patients, being recognized is an empowering experience and thought to contribute to the quality of health care. (Richards 1993; Morgan & Sanggaran 1997; Mossop & Wilkinson 2006).

This doctoral thesis ties in closely with the mission of polytechnic health care education to prepare nursing students for the provision of care in partnership with patients. It espouses the view of collaborative learning (Tossavainen 1996) which has it that students' clinical learning can be regarded as a reciprocal relationship of collaboration between the student and patient. A multimethod approach was adopted to study this little-researched phenomenon. The work was carried out in two phases between 1999–2007. The process started with a literature review (Paper I), which described the nursing student-patient relationship in the light of previous studies. The results of this review were used to develop semi-structured interview themes for the collection of data describing nursing students' and patients' experiences of their relationship (Paper II). In this first phase, the main concern was to gain a basic insight into the nursing student-patient relationship with a view to developing self-administered questionnaires for the measurement of the student-patient relationship. The questionnaires were initially used to collect data for purposes of describing and comparing nursing students' and hospitalized internal medicine patients' perceptions of the student-patient relationship (Paper III) as well as factors related to the types of relationship, and to identify factors that predict the type of relationship (Papers IV–V, Summary). Table 1 provides an overview of how the study was organized into phases.

Specifically, the purpose of this study is to analyse the nursing student-patient relationship and factors associated with this relationship from the point of view of both students and patients and second, to identify factors that predict the type of relationship. The ultimate goal is to improve supervised clinical practicum with a view to supporting students in their reciprocal collaborative relationships with patients, increase their preparedness to meet patients' health needs, and thus to enhance the quality of patient care.

Table 1 Aims, samples, and methods of data collection and analysis

Phase of the study	Paper	Aims	Sample	Methods of data collection	Methods of analysis
Phase I 1999–2005	I	To describe the nursing student-patient relationship in the light of previous studies in order to design an empirical study in this area.	Literature on nursing student-patient relationship (n=104 articles)	CINAHL and MEDLINE databases between 1984 and 1998	Inductive content analysis
	II	To describe the main features of the relationship, activities and actors in the relationship, factors associated with the relationship and the consequences of the relationship for both students and patients.	Students (n=30), patients (n=30)	Semi-structured interviews	Inductive content analysis
	Summary	To develop and test instruments (SPR scales) for the measurement of subcategories of the student-patient relationship obtained from the literature review and interview data.	Students (n=33), patients (n=28)	Pilot versions of Student-Patient Relationship Scales (SPR scales)	Descriptive statistics
Phase II 2005–2007	III	To describe and compare nursing students' and patients' perceptions of the nursing student-patient relationship.	Students (n=290), patients (n=242)	SPR scale	Descriptive statistics, Cronbach's alpha, principal component analysis, independent samples T-test, Cohen's d.
	IV	To describe factors related to the type of student-patient relationship from students' point of view, and to identify which factors predict the type of relationship.	Students (n=192)	SPR scale	Descriptive statistics, Cronbach's alpha, principal component analysis, chi-square test, Fisher's exact test, one-way analysis of variance with multiple comparison methods by Tukey or Tamhane, and multinomial logistic regression.
	V	To describe factors related to the type of student-patient relationship from patients' point of view, and to identify which factors predict the type of relationship.	Patients (n=166)	SPR scale	Descriptive statistics, Cronbach's alpha, chi-square test, Fisher's exact test, one-way analysis of variance with multiple comparison methods by Tukey or Tamhane, and multinomial logistic regression.
Summary 2007		To analyse the nursing student-patient relationship and factors associated with this relationship from the point of view of both students and patients, and to identify factors that predict the type of relationship.	All data above	All data above	All data above, independent samples T-test, chi-square test, Fisher's exact test, principal component analysis, Cohen's d.

2 SUPERVISED CLINICAL PRACTICUM IN NURSING EDUCATION

Nursing education in Finland is provided by polytechnics as part of the higher education system. Polytechnics have a high degree of independence in designing and implementing their curricula within the wider framework of EU directives and national requirements for polytechnic degrees. Bachelor-level degree programmes involve basic and professional studies, optional studies, clinical placements and a diploma project (Ministry of Education 2000) and consist of 210 ECTS (European Credit Transfer and Accumulation System) credits in nursing, 240 ECTS credits in public health nursing and emergency care and 270 ECTS credits in midwifery education. Supervised practical training in clinical placements account for 75 credits of the nursing degree programme. (Directive 2005/36/EC; Opetusministeriö 2006.)

Supervised clinical practicum in hospitals and other health institutions and in the community plays an important part in promoting nursing students' professional competence and in supporting their growth towards a professional nurse career. In these clinical environments, students gain first-hand experience of job tasks that are of central importance to developing their technical and interpersonal clinical skills. The nurse's basic competence areas refer to the knowledge, skills and preparedness that a professionally competent nurse needs when working in the health care field in co-operation with patients and clients, supporting them in their attempts to achieve better health and well-being. (Ylipulli-Kairala & Lohiniva 2002; Heinonen 2003; Opetusministeriö 2006.) A patient orientation and the establishment of collaborative relationships with patients in clinical training are therefore crucially important. These should be learned and assimilated first by working with one assigned patient and eventually a few patients (Munnukka 1996; Vesanto & Munnukka 1996; Ylipulli-Kairala & Lohiniva 2002).

The reorganization of nursing education in Finland under the umbrella of polytechnics in the 1990s has contributed positively to the development of education, but supervised clinical practicum has still not received the attention it deserves in view of its importance to nursing studies (Ylipulli-Kairala & Lohiniva 2002). Evaluations on health care education by the Finnish Higher Education Evaluation Council have shown that there is a need to develop the quality of student supervision in clinical practicum (Perälä & Ponkala 1999; Ponkala 2001). Even though nurse teachers are responsible for the practical training of students together with health care staff (Heinonen 2003; Directive 2005/36/EC; Opetusministeriö 2006), in practice the supervision of students has largely remained the responsibility of nursing staff, but they do not have the resources to perform this task consistently (Räsänen 2002; Ylipulli-Kairala & Lohiniva 2002). Furthermore, in clinical placements students may find it difficult to practise in the way they have learned in their theoretical studies (Hentinen 1989; Hills 1998; Jaroma 2000; Lemonidou, Papathanassoglou, Giannakopoulou, Patiraki & Papadatou 2004; Mackintosh 2006). Co-operation between student, supervisor and teacher is, however, crucially important in order to bridge theory and practice, to

promote evidence-based practice, to gain optimal benefit from the limited resources and to achieve the requirements set for students' professional studies (Turunen 1997; Perälä & Ponkala 1999; Ponkala 2001; Opetusministeriö 2006; see also Penz & Bassendowski 2006). Not only the nurse-patient relationship but also the student-supervisor relationship is important to the development of future patient-health care provider relationships (Heinonen 2003).

3 LITERATURE REVIEW

The literature review for this research covered the period from 1984 to July 2007. In Phase I, an initial review was undertaken on the 1984–1998 period in order to gain an overview of the literature on the nursing student-patient relationship and to provide general guidance for the empirical study in this area (Paper I). Since then the literature review has been updated (Papers II–V, Summary). In both the first and second phases, MEDLINE and CINAHL CD-ROM databases were searched using the keywords ‘nurse-patient relations’, ‘nursing students’ and ‘student-patient relations’. Furthermore, in preparation for this summary, the keywords ‘professional-patient relations’ and ‘interpersonal relations’ were also used. In addition to the database searches, a supplementary manual search was conducted in order to identify relevant literature, particularly studies concerning Finnish health care education, most of which have been published between 1999 and 2007 (Salminen, Nuutila, Hupli, Heikkilä & Leino-Kilpi 2006).

This literature review begins by providing a definition of the student-patient relationship and then proceeds to examine earlier research between 1999–2007 concerning types of nursing student-patient relationship, contextual factors and consequences of the nursing student-patient relationship. The main emphasis is on student-patient relationship studies, but some references are also made to other closely related studies. A summary of these studies is presented in Appendix 1.

3.1 Definition of student-patient relationship

The relationship between health care practitioner and patient has been addressed in a number of different disciplines. Different perspectives shed light on different aspects and characteristics of the relationship, in which the patient’s role can be more or less active or passive (e.g. Szasz & Hollender 1956; Leino-Kilpi 1990; Morse 1991; Emanuel & Emanuel 1992). In nursing, the nurse-patient relationship is defined as the central event in which the nurse and patient come to know each other well enough to address the problem at hand in a co-operative way so that they can achieve outcomes that are beneficial to the patient. Human communication, professional attitudes, information and a caring involvement are seen as important elements of the nurse-patient relationship, and the quality of nursing can be seen in the light of this relationship (Gastmans 1998; Saveman, Mählen & Benzein 2005). The basic structure of this relationship has three overlapping phases: orientation, working phase and termination. The nurse’s orientation to the patient is mostly a one-way contact, with an emphasis on the nurse trying to get to know the patient and obtain information about the patient’s health. In the working phase, the focus is on the patient’s reactions to the illness and the work to be done by the patient toward his/her development understanding of himself/herself, and toward learning what the patient’s current health condition requires of him/her. As contacts between patients and nurses are often of a relatively short duration, it is essential that the nurse serves as a resource person,

helping the patient cope with the transitions from one situation to another, for instance in the move from a hospital unit into the community. In preparation for termination, discharge planning with the patient generally begins in the working phase and is concluded in the termination phase. (Peplau 1988, 1997.)

None of studies reviewed provide a rigorous definition of the student-patient relationship. A wider term for the nurse-patient relationship is 'caring' (Hoidokki – Hoitotieteellinen asiasanasto 2005), which has been used in a number of studies concerning students' relationships with patients (e.g. Beck 2001; Watson, Deary & Hoogbruin 2001; Karaöz 2005; Lee-Hsieh, Kuo, Tseng & Turton 2005; Peyrovi, Yadavar, Nikraves, Oskouie & Bertero 2005). Dictionary definitions of relationship refer to the state of being connected, an emotional or other connection between people or the way in which two or more people or groups regard and behave towards each other (Oxford English Dictionary 1989; Webster's Encyclopedic Unbridged Dictionary of the English Language 1996; Collins English Dictionary 2000). These connections, linkages, bonds or patterns also develop and are identifiable within the professional relationship between nurse or student and patient. In the context of health care education, then, actual contacts with patients and the relationship with patients are crucial in developing the skills that students need in working with patients. Patients who are involved in health care education directly offer students an educative experience, in which students learn to make observations, ask and respond to questions, and obtain and use vital information. Students also learn to make inferences about patients' needs, make distinctions among needs and degrees of urgency and carry out interpersonal interventions. (Peplau 1988, 1997.) Furthermore, acquiring the skill of self-disclosure is considered important in initiating, developing and terminating relationships with patients (Morse 1991; Ashmore & Banks 2002). In this study, the nursing student-patient relationship is understood as referring to connection, interaction and cooperation between the student and the patient and the way in which they regard and behave towards each other in promoting the patient's health and well-being. At the same time, this relationship is seen as supporting the learning of care.

3.2 Types of student-patient relationship

Contacts with patients are considered by nursing students as the most important nursing function (Granum 2004; Lemonidou et al. 2004). Furthermore, nursing students are concerned about the welfare of patients (Han & Ahn 2000) and from the earliest stages of their education they are committed to delivering high quality care to patients (Fagerberg & Kihlgren 2001; Mackintosh 2006). However, not all relationships develop into caring relationships in the sense of affectively relating to the patient. Especially in the initial stages of their training students' learning in clinical settings is largely focused on technical aspects of nursing and on achieving new skills rather than on the processes of caring and on interactions with patients (Orland-Barak & Wilhelm 2005). In these situations, the patient is regarded as an object as students focus on satisfying their own needs. As they gain more confidence, students move from the role of observer and trainee of technical skills towards adopting a wider focus

on the patient's unique characteristics and needs. Being interested in patients' expectations, becoming involved with them, and thus providing individualized care independently at the level of one's competence become more apparent as students progress through the education programme. (Granskär, Edberg & Frilund 2001; Watson et al. 2001; Kotecki 2002; White 2003; Stockhausen 2005.) According to Sarajärvi (2002), students have three different approaches to nursing: normative, independent and collaborative. These approaches reflect different types of student-patient relationship in which the student's involvement with the patient is based either on the general pattern of action on the ward, on their own knowledge base and their own internal sense of what is in the patient's best interest, or on a joint view reached by the student and patient on the goals and objective of care. Patients, for their part, are either passive participants in their care, objects or targets of care, or equal and responsible decision-makers in matters concerning their care.

A connected relationship with the patient has been described by Peyrovi et al. (2005) as being based on an awareness of the unique features of the relationship that students establish with each patient. Through a mutual sense of proximity, students gain a holistic view of the patient, and they consider the patient as a human being with a range of biopsychosocial and spiritual needs. This perception has also been confirmed in other studies, emphasising that patients should be seen as whole persons and that their needs should be met in an appropriate manner in order to promote their health (Lundberg & Boonprasabhai 2001; White 2003; Karaöz 2005). Physical proximity with the person, authentic presencing, attentive listening and sharing parts of selves are essential in striving to connect with patients (Beck 2001). Furthermore, respect and empathic linkages such as to have and share feelings and understand the patient's feelings are seen as important attributes of a professional relationship (Jrasat, Samawi & Wilson 2005).

Meaningful interpersonal relationships and good nursing care are dependent on good communication (Lundberg & Boonprasabhai 2001; Tuohy 2003; Karaöz 2005). Communication is described by Sadala (1999) as something that may be used in order to promote patient recovery and to develop patients' autonomy in taking care of themselves. This communication is possible if a person-to-person relationship with the patient is established with a genuine interest in the patient as a unique being. It seems that students understand communication as a means of providing emotional support and developing a relationship with the patient. However, in clinical settings students often encounter problems in communication with patients and fear that they might say the wrong things to patients (Kotecki 2002). In general, then, much of communication is task-related, aimed for instance at assisting patients with personal hygiene, with some communication on issues of everyday character occurring whilst students attend to nursing care activities (Tuohy 2003).

A review covering the period from 1999 to 2007 revealed only one study concerning the patient's perception on the student-patient relationship: this was a project to develop a tool for the measurement of patients' perceptions of caring behaviour in nursing students (Lee-Hsieh, Kuo, Tseng & Turton 2005). Furthermore, two studies described the development of survey tools measuring nurse-patient interactions from a

caring perspective in samples of nursing students (Cossette, Chantal, Ricard & Pepin 2005; Cossette, Cote, Pepin, Ricard & D'Aoust 2006).

3.3 Factors associated with student-patient relationship

The student-patient encounter is identified as the most complex of all encounters found within the clinical setting in which students are faced with numerous demands, emotions and expectations (Lemonidou et al. 2004; van Rooyen, Laing & Kotzé 2005; Baxter & Rideout 2006). A number of studies have been conducted on the factors that influence the relationship between student and patient. These studies have shown that both students and patients enter a relationship with preconceptions and stereotypical images about one another. (Suikkala & Leino-Kilpi 2001.) Recent studies have confirmed that personal and contextual factors, i.e. perceptions of self and others, personal feelings and characteristics of student, patient and nursing activity are associated with the student-patient relationship. Students' expectations and attitudes prior to clinical practice may be based on previous personal experiences or information of others, which do not always convey a positive perception about patients and clinical settings (Sadala 1999; Granskär et al. 2001; Patterson & Morin 2002). In most cases, however, students' past experiences of caring for an ill family member, friend or someone else (Cunningham, Copp, Collins & Bater 2006) and past relationships with patients have been found to positively influence students' attitudes and facilitate the student's ability to enter into a caring relationship with the patient (Crigger 2001).

In general, students' caring qualities such as appropriate personal and professional attributes, effective interpersonal skills (Edwards 2000; Ashmore & Banks 2002), professional behaviour (Morin et al. 1999; Patterson & Morin 2002; Mossop & Wilkinson 2006) and ability to cope with feelings (Granskär et al. 2001) significantly determine student-patient interactions. The clinical competence needed to respond appropriately to the demands of patient care is regarded as a crucial part of the process of developing a professional relationship with the patient (Beck 2001; Karaöz 2005). In the early stages of their education, then, because of their lacking knowledge and skills, students tend to focus more on performing nursing tasks (Jaroma 2000; Granum 2004; Mackintosh 2006), whereas students who have advanced further in their education feel more confident in establishing relationships with patients (Löfmark, Hannersjö & Wikblad 1999; Granskär et al. 2001; Pesut 2002). There is, however, some evidence that even in the early stages of their education students' views of nursing care are rather patient-centred (Westergård, Seppä, Kaunonen & Tarkka 2001). In the course of their training and education students begin to adopt a more technical approach (Karttunen 1999; Sarajärvi 2000), even though there are still indications of their initial patient orientation in the later stages of training as well (Ora-Hyytiäinen 2004; Ajanko & Leino-Kilpi 2005; Mikkonen 2005). However, it has also been reported that students' orientation to nursing remains rather consistent throughout their education (Vanhanen 2000). For patients, it is not the competence of students but rather their gender, personality and behaviour that is most important (Morin et al. 1999; Mossop & Wilkinson 2006).

There is some evidence that certain patient characteristics or aspects of the caring situation are more or less likely to contribute to the development of favourable relationships between students and patients. It seems that the patient's personal attributes, feelings and behaviour influence students' experiences of their relationship with patients. Students prefer to care for patients who are communicative (Tuohy 2003), compliant with the patient role and who have a positive response to students' presence or helping behaviour (Kotecki 2002) and who are thus willing to establish a relationship with the student (Morin et al. 1999; Granskär et al. 2001). Furthermore, students emphasize the importance of considering the sociocultural background of patients in the provision of good nursing care (Lundberg & Boonprasabhai 2001). In contrast, students' negative preconceptions and stereotypes of patients (Tuohy 2003; Kidd & Tusaie 2004; Hayman-White & Happell 2005) seem to be less likely to facilitate a caring relationship with the patient.

Encounters with patients are mainly regarded as a positive experience by students (Cunningham et al. 2006), and caring for seriously ill or suffering patients can even stimulate the relationship between student and patient (Crigger 2001). Even though students demonstrate a willingness to contact and help patients, relationships with patients engender various different emotions, such as anxiety and feelings of inadequacy, frustration, helplessness, self-doubt, and even fear (Karttunen 1999; Melrose & Shapiro 1999; Sadala 1999; Allcock & Standen 2001; Crigger 2001; Kotecki 2002; Kotzabassaki, Vardaki, Andrea & Parissopoulos 2002; White 2003; Celik & Bayraktar 2004; Peyroni et al. 2005; van Rooyen et al. 2005; Baxter & Rideout 2006; Cassidy 2006; Cunningham et al. 2006). Although it seems that students are willing to interact with the patient (Stewart 1999) or deal with the patient in the same way regardless of their medical diagnosis (Jrasat et al. 2005), in stressful situations they may adopt avoidance behaviours in order to cope with the situation, for instance by limiting the amount of time they spend with the patient or by withdrawing from the situation (Allcock & Standen 1999; van Rooyen et al. 2005; Cunningham et al. 2006), or by otherwise maintaining their distance in order to reduce their anxiety levels in the face of the unknown (Sadala 1999; Wolf 2001; Cassidy 2006).

The relationship between the student, supervisor and the whole staff is of great importance (Saarikoski 2002; Papp, Markkanen & von Bonsdorff 2003). The atmosphere during student-patient collaboration is very much affected by nursing staff attitudes and behaviour towards patients and students (Hjörleifdóttir & Carter 2000). Students emphasize the importance of observing and imitating the behaviour and demeanour of nurses in the development of their psychological caregiving abilities: therefore not only the supervisor but the whole staff, when they act professionally, serve as a positive role-model for students (Priest 1999; Raji 2000; Beck 2001; Randle 2001; Sarajärvi 2002; Tuohy 2003; Mikkonen 2005; van Rooyen et al. 2005; Cassidy 2006). Furthermore, supportive staff nurses who are committed to working with students have a significant role in the development of students' perception of themselves, their abilities and nursing practice, especially in the initial stages of education and in challenging situations throughout clinical placements (Beck 2001; Koskinen & Silen-Lipponen 2001; Patterson & Morin 2002; White 2003; Stockhausen 2005; Baxter & Rideout 2006; Cunningham et al. 2006). In order to understand the

nurse-patient relationship and adopt a patient-centred approach, students need the help and guidance of staff nurses, especially with communication and their work with patients (Kotecki 2002; Honey, Waterworth, Baker & Lenzie-Smith 2006). Students also appreciate the support of their student colleagues both within and outside the clinical setting (Patterson & Morin 2002; Eifried 2003; Lemonidou et al. 2004; Peyrovi et al. 2005; van Rooyen et al. 2005) and the support of instructors (Melrose & Shapiro 1999) in learning how to care for patients and act in social situations with patients. In general, it has been found that a biomedical approach, time pressures due to staff shortages, a hectic pace and general climate on the ward and task-oriented workplace practices tend to hinder effective communication between student and patient and thus to obstruct the development of the student-patient relationship (Hjörleifsdóttir & Carter 2000; Crigger 2001; Tuohy 2003; Cassidy 2006; Mackintosh 2006). Interventions that involve nurses and students spending time with patients, on the other hand, enhance relationships with patients (Tuohy 2003) and are a high priority according to patients (Edwards 2000).

There is only limited earlier research into the associations of supervised clinical practicum with learning results (Vuorinen, Meretoja & Eriksson, 2005). However, there is some evidence that most contextual learning occurs as students are immersed in the clinical experience with patients (Priest 1999; White, Kouzekanani, Olson & Amos 2000; Stockhausen 2005; Cunningham et al. 2006; Ferrari 2006), underscoring the importance of the relationship with patient to students' personal and professional growth. Through authentic encounters with the patient, students gain an in-depth knowledge of caring for patients, learn to look at issues from patients' point of view and to understand their situation better and in greater depth (Raj 2000; White et al. 2000; Granskär et al. 2001; Turner, Callaghan, Eales & Park 2004; Stockhausen 2005; Kaymakçi, Yavuz & Orgun 2006). In addition to improving their communication and acquiring other clinical skills (Karttunen 1999; McLafferty & Morrison 2004; Salmela 2004) when working with patients, students learn about themselves and thus grow as human beings (Eifried 2003; Mikkonen 2005; Shellman 2006). When encounters with patients are a rewarding experience that give rise to positive emotions such as a sense of success and self-confidence (Beck 2001; Kotecki 2002; Mikkonen 2005; Shellman 2006), they encourage students to rely more on their own competencies and thus increase their work motivation (Kaymakçi et al. 2006). Some assessments have been conducted on the impact of different teaching methods and on simulations as a means for changing students' attitudes towards and perception of patients (Clinton 1999; Puentes & Cayer 2001; Rogan & Wyllie 2003; Kwekkeboom, Vahl & Eland 2005; Needham, Abderhalden, Zeller, Dassen, Haug, Fischer & Halfens 2005) and on how this contributes to their encounters with patients (Cutcliffe & Cassidy 1999; Festa, Baliko, Mangiafico & Jarosinski 2000; Lin, Shiah, Chang, Lai, Wang & Chou 2004; Lee-Hsieh, Kuo & Tseng 2005; Becker, Rose, Berg, Park & Shatzer 2006; Ferrari 2006; Honey, Waterworth, Baker & Lenzie-Smith 2006; Kluge & Glick 2006; McConville & Lane 2006; Rush & Barker 2006), but the results on the effectiveness of these methods are partly inconsistent.

The more recent studies reviewed here have confirmed the findings of earlier studies presented in Paper I that in most cases, patients find their relationship with the student

a positive experience. According to Turner et al. (2004), clients perceive the relationship with the student as helpful. The results of Mossop & Wilkinson (2006) confirm this perception, suggesting that patients enjoy the nursing care, attention and the increased social opportunities that students provide in increasing their level of comfort. Furthermore, student evaluations of patient education have indicated that patients benefit from the education that is designed according to their individual needs (Kaymakçi et al. 2006).

3.4 Conclusions from the literature review

The central importance of the student-patient relationship to achieving the attributes needed for the provision of good nursing care is widely recognized in clinical learning. Even in the initial stages of their education, students are committed to delivering high quality care to patients and reading the situation from the patient's point of view. In their encounters with patients, students move from learning to perform interventions towards being present with patients as persons and towards seeing and responding to their unique characteristics and needs. However, the relationship is influenced by several factors, such as student and patient attributes and the atmosphere during student-patient collaboration, which either promote or impede the development and establishment of the relationship between student and patient.

In conclusion, the review of the literature on the student-patient relationship showed that there is a scarcity of empirical research into the nursing student-patient relationship. Most studies have focused on the students' perspective: their experiences, perceptions of and attitudes towards patients and caring situations. The studies concerning the student-patient relationship have been carried out either in clinical contexts (e.g. Morin et al. 1999; Sadala 1999; Hjörleifdóttir & Carter 2000; Rajj 2000; Hodges, Keeley & Grier 2001; Randle 2001; Eifried 2003; Tuohy 2003; Lemonidou et al. 2004; Mikkonen 2005; Orland-Barak & Wilhelem 2005; Peyrovi et al. 2005; Stockhausen 2005; Cassidy 2006; Kaymakçi et al. 2006; Mackintosh 2006; Mossop & Wilkinson 2006; Shellman 2006), before or after students' clinical placement (e.g. Lauder, Reynolds, Smith & Sharkey 2002; Haymann-White & Happell 2005; Karaöz 2005; McLafferty 2005; van Rooyen et al. 2005) or in simulations (e.g. Ashmore & Banks 2004). According to the literature review, there is a shortage of empirical analyses of the student-patient relationship, and particularly of work that takes into account the views of both parties, i.e. the student and the patient. On the whole, there is an obvious need for research to shed light on the relationship between nursing students and patients in hospital environments, which is where the majority of nursing students' practical training takes place.

4 PURPOSE OF THE STUDY

This study had two main purposes: First, it analysed the nursing student-patient relationship and factors associated with this relationship from both the students' and patients' point of view, and second, it identified factors that predict the types of student-patient relationship. The ultimate goal is to improve supervised clinical practicum for students with a view to supporting them in reciprocal collaborative relationships with patients, to increase their preparedness to meet patients' health needs, and thus to enhance the quality of patient care.

More specifically, the following research questions were addressed:

1. What are the different types of nursing student-patient relationship?
 - 1.1. What are the characteristics of the student-patient relationship from the students' and patients' point of view? (Paper I–II, Summary)
 - 1.2. How do students and patients view the student-patient relationship? (Paper III, Summary)
 - 1.3. Are there differences between students' and patients' views of the student-patient relationship? (Paper III, Summary)
2. What factors are associated with the type of student-patient relationship?
 - 2.1. Which background factors are associated with the student-patient relationship as perceived by students and patients? (Papers II, IV–V, Summary)
 - 2.2. Which contextual factors are associated with the student-patient relationship as perceived by students and patients? (Papers II, IV–V, Summary)
 - 2.3. Which consequences of the student-patient relationship are associated with this relationship as perceived by students and patients? (Papers II, IV–V, Summary)

5 MATERIAL AND METHODS

5.1 Settings and sampling

In **Phase I**, an international literature search was carried out on the MEDLINE and CINAHL databases for 1965–1998, using the keywords ‘nurse-patient relations’, ‘nursing students’ and ‘student-patient relations’. The search produced a total of 484 articles. Due to the many changes that have taken place in nursing education and health care since the 1980s and an increasing interest in the subject since then, the search was then limited to the period from 1984 to 1998. A purposive sample was drawn to include relevant scientific literature in the English or Finnish language. In the 104 articles produced by this search, nursing students, other health care students, clients or patients formed all or part of the sample population; some of these articles were theoretical papers related to the topic. (Paper I.)

In this study, two empirical data sets were collected from nursing students and internal medicine patients (Papers II–V). The students involved were Finnish-speaking, Bachelor of Health Care students studying for the degree of registered nurse (Directive 2005/36/EC). All students received clinical practicum on internal medicine wards. They were recruited from all stages of nursing education because it was assumed that relationships between students and patients differ at different stages. In both phases, one Finnish-speaking internal medicine patient was recruited from amongst those receiving care from nursing students. The selection criteria for patients were age 18 or over, voluntary participation, and capable of participating in the study.

In **Phase I**, the data were collected from a purposive sample of nursing students (n=30) and patients (n=30) on eight internal medicine wards at one Finnish university hospital between February 21 and May 25, 2000 (Paper II). The participants were assumed to possess significant information about the field under investigation (Miles & Huberman 1994; Coyne 1997). The patients involved were those whose stay on the ward coincided with the interviewed students’ clinical placement. On each ward taking part in the study, the students and patients were recruited by a ward manager on the basis of the criteria set out. Once consent had been obtained, the researcher contacted the students and the patients to make an appointment for a personal interview. (Appendices 2–3.) The student informants were aged between 20 and 42 years, 89% of them were women, and 77% were second-year students. The patient informants were aged between 40 and 90, 66% of them were women and the mean duration of their hospital stay was 7 days. More detailed demographic data on the sample in the interview study are presented in Paper II.

In **Phase II**, the data were collected from a convenience sample of nursing students (n=310) and patients (n=289) on internal medicine wards at all five university hospitals and at five out of sixteen central hospitals in different parts of Finland between September 15, 2005 and May 22, 2006. The number of participants on each ward was determined on the basis of the planned number of nursing students that were to be in clinical placement on each ward at the time of data collection. The patients were

recruited from amongst those whose stay on the ward was three days or longer and who met the other sampling criteria. Ward managers or students' supervisors were informed of the subject of the research and they were asked to arrange the distribution of questionnaires to students and patients (Appendix 4). Before handing out the questionnaires, they asked the students and patients who met the sampling criteria whether they would be willing to participate. Once they had asked the participants' consent, ward managers or students' supervisors completed a follow-up form concerning the participant's age and gender, the student's degree programme and reason for the patient's hospital admission (Appendix 5). In this way information was obtained from all participants, including those who did not return the questionnaire or who refused to answer it.

The questionnaire was returned by 292 (94%) students and 277 (96%) patients. A total of 290 student questionnaires and 242 patient questionnaires were valid and were included in the analysis (Paper III). The students' age ranged from 19 to 50 years (mean 26, SD 7.0) and 91% of them were women. Most of the students (82%) were studying for the degree of registered nurse, 35 students were studying for the degree of public health nurse, 15 for a degree in midwifery and only one student was to become an emergency nurse. Half of the students (52%) were in the second year of their studies. Clinical placements typically lasted 5 weeks. (Table 2.)

The age of the patients ranged from 18 to 91 years (mean 59, SD 16.1). Over half (60%) of them were female and 66% had been admitted as emergency patients. The mean duration of hospital stays was 14 days, ranging from 3 to 166 days. (Table 3.)

As far as possible the students and patients were categorized into one of three types of relationship. Out of the total of 290 students, 192 could be slotted into one of three categories as follows: 14 students were placed under the mechanistic, 70 under the authoritative, and 108 under the facilitative relationship. Out of 242 patients, 166 could be categorized into a mechanistic, authoritative or facilitative relationship; the number of patients in each category was 56, 83 and 27, respectively. The background data for these participants are summarized in Papers IV and V.

Table 2 Demographic data on students

Variable	n	%	Mean (SD)
Age	290		25.7 (7.0)
Gender			
<i>Male</i>	27	9.3	
<i>Female</i>	262	90.7	
Education			
<i>Senior secondary/Matriculation</i>	180	62.1	
<i>Social or health care</i>	78	26.9	
<i>Other</i>	32	11.0	
Previous working experience in nursing care			
Yes	121	41.7	
No	169	58.3	
Degree programme			
<i>Nursing (210 ECTS)</i>	239	82.4	
<i>Public health nursing (240 ECTS)</i>	35	12.1	
<i>Midwifery (270 ECTS)</i>	15	5.2	
<i>Emergency care (240 ECTS)</i>	1	0.3	
Current years of studies			
1 st year	30	10.4	
2 nd year	150	51.9	
3 rd year	81	28.0	
4 th year	28	9.7	
Duration of clinical placement			
2 weeks	1	0.3	
3 weeks	1	0.3	
4 weeks	73	25.2	
5 weeks	132	45.5	
6 weeks	34	11.7	
> 6 weeks	49	16.9	
Assessment of supervised clinical placement			
<i>Inspiring</i>	125	43.1	
<i>Rather inspiring</i>	137	47.2	
<i>Neither frustrating or inspiring</i>	25	8.6	
<i>Rather frustrating</i>	3	1	
Assigned to a specific patient			
Yes	186	64.1	
No	104	35.9	
Having enough time for the patient			
Yes	216	75.3	
No	54	18.8	
Don't know	17	5.9	
Support received from			
<i>Teacher</i>	59	20.4	
<i>Supervising nurse</i>	244	84.4	
<i>Student colleague</i>	93	32.2	
<i>Other person within or outside the ward</i>	53	18.3	
No one	16	5.5	
Experience of caring for ill family member			
Yes	102	35.3	
No	187	64.7	

Table 3 Demographic data on patients

Variable	n	%	Mean (SD)
Age	242		58.5 (16.1)
Gender			
<i>Male</i>	97	40.1	
<i>Female</i>	145	59.9	
Education			
<i>No vocational education</i>	79	33.1	
<i>Vocational training course</i>	48	20.1	
<i>Secondary level qualifications</i>	54	22.6	
<i>College diploma</i>	36	15.1	
<i>Polytechnic</i>	6	2.5	
<i>University</i>	15	6.3	
<i>Other</i>	1	0.4	
Marital status			
<i>Married/cohabiting</i>	148	61.2	
<i>Unmarried</i>	26	10.7	
<i>Divorced</i>	27	11.2	
<i>Widowed</i>	41	16.9	
Previous hospitalizations			
<i>None</i>	10	4.1	
<i>One</i>	26	10.7	
<i>Two</i>	31	12.8	
<i>Three or more</i>	175	72.3	
Reason for hospital admission			
<i>Medical problem</i>	70	29.2	
<i>Diagnostic examination</i>	11	4.6	
<i>Emergency</i>	159	66.3	
Number of days in hospital			13.7 (20.2)
Size of patient room			
<i>One-patient room</i>	37	15.5	
<i>Two-patient room</i>	95	39.9	
<i>Three-patient room</i>	67	28.2	
<i>More than three patients in room</i>	78	32.8	
<i>Other room</i>	23	9.7	
Previous experience of student participation in care			
<i>Yes</i>	145	60.7	
<i>No</i>	67	28.0	
<i>Don't know</i>	27	11.3	
Named nursing student			
<i>Yes</i>	79	33.2	
<i>No</i>	106	44.5	
<i>Don't know</i>	53	22.3	
Student has enough time for the patient			
<i>Yes</i>	197	83.8	
<i>No</i>	10	4.3	
<i>Don't know</i>	28	11.9	
Experience of caring for ill family member			
<i>Yes</i>	94	39.5	
<i>No</i>	144	60.5	

5.2 Instruments

In **Phase I**, the data were collected in semi-structured interviews (Paper II). The themes for these interviews were selected on the basis of the literature review (Paper I): these were the main features of the relationship, activities and actors in the relationship, factors associated with the relationship, and consequences of the relationship. The interview themes were the same for students and patients (Appendix 6). The researcher conducted five semi-structured interviews by way of a pilot study. Since these interviews were fully successful and no changes were needed to the interview schedule, they were included in the final analysis. During the interview the researcher presented open-ended questions about the subject matter and encouraged participants to talk about their experiences of the student-patient relationship in their own words. Additional questions were presented according to what seemed appropriate in the context of the conversation with a particular interviewee (Robson 1993). The interviews were carried out in a room where the interviewee and the researcher could be alone. Each participant was interviewed once for approximately one hour (range of patient interviews 30–90 minutes, range of student interviews 50–105 minutes). A memo was written after each interview to help the researcher plan the next interview and remember the events when analysing the data (Catanzaro 1988). The choice to conduct theme interviews was based on the relative scarcity of earlier research into the nursing student-patient relationship and on the presumed lack of knowledge about the issue, particularly among patients.

In **Phase II**, Student-Patient Relationship Scales (SPR scales) were used to examine the relationship between nursing students and patients and the factors associated with the type of this relationship (Appendixes 7–8). The SPR scales were designed on the basis of the literature review (Paper I) and interview study (Paper II), and they were piloted with 33 nursing students and 28 internal medicine patients. The SPR scales thus obtained included background demographic data items (items 1–12), self-ratings concerning mechanistic (MR, items 18–22, 32–33, 44–45), authoritative (AR, items 23–31, 42–43) and facilitative relationships (FR, items 13–17, 34–41), student's personal and professional attributes (SA, items 46–53), patient's attributes as a patient (PA, items 54–61) and atmosphere during collaboration (AC, items 62–66) and finally student's personal and professional growth (SG, items 67–70), student's increased confidence and self-esteem (SC, items 71–74) and patient's improved health and commitment to self-care (PH, items 75–79). An open-ended question was included at the end of the questionnaires so that respondents could offer supplementary explanations. The only differences between the two parallel SPR scales were in their background demographic data items. With the exception of these background items, the SPR items were arranged on a five-point Likert-scale (1 = strongly disagree, 5 = strongly agree). The content of the questionnaire items are described in Papers III–V.

5.3 Data analysis

In **Phase I**, inductive content analysis was used to illustrate the content of the articles derived from MEDLINE and CINAHL as well as the semi-structured interviews. The

analysis of the literature focused on the sources of information, research methods, the student perspective on experiences, perceptions and attitudes, the patient perspective on experiences and perceptions, students' interpersonal skills and the effects of teaching methods on students' interpersonal skills. The results of this analysis are described in Paper I.

The semi-structured interviews were transcribed verbatim and analysed by means of qualitative content analysis (Krippendorff 1980; Waltz, Strickland & Lenz 1991). Each transcribed interview was first read through several times to form an overall impression of the material. This was followed by inductive content analysis in which categories were constructed directly from the data. In coding the transcript, the unit of analysis was a complete idea or thought, ranging from a single word to several sentences related to the content of a unit of analysis and the context in which a unit of analysis was set in order to categorize it. (Berelson 1952; Holsti 1969; Catanzaro 1988; Cavanagh 1997.) The data were organized into themes by gathering thoughts and ideas from the text. Next, similar codes were grouped into subcategories, drawing comparisons between the data concerning a particular subcategory and other observations. Related subcategories were combined to form categories and, further, main categories. (Tesch 1990; Waltz et al. 1991; Dey 1993; Robson 1993.) An example of the process of content analysis is presented in Paper II, Table 1.

In **Phase II**, the data were analysed by SPSS software 12.0 and described by using frequency tables and descriptive statistics. Sum variables to describe the domain of student-patient relationship and associated factors were formed by summing the item values and then dividing the sum by the number of items to obtain average scores for the sum scales. This means that the sum variables have the same five-point scale as individual items. A total of nine sum variables were used: mechanistic relationship (MR), authoritative relationship (AR), facilitative relationship (FR), student's personal and professional attributes (SA), patient's own attributes as a patient (PA), atmosphere during collaboration (AC), student's personal and professional growth (SG), student's increased confidence and self-esteem (SC), and patient's improved health and commitment to self-care (PH). The reliability of the sum variables was controlled by calculating Cronbach's alpha coefficients and by using item analysis to ascertain the compatibility of individual questions with the instrument (Polit & Beck 2004). Principal component analysis (PCA) was used to examine the construct of the SPR scales (Papers III–IV, Summary).

The sample size was large enough (central limit theorem) to use parametric tests without concerns of normality assumptions. Skewnesses were in the same direction in both of the groups compared. Parametric tests have more power to reveal statistically significant differences or associations between groups and they should be used whenever possible (Polit & Beck 2004). Independent samples T-test was used to compare the mean scores of the sum variables (MR, AR, FR, SA, PA, AC, SG, SC, PH) between students and patients. Estimated effect sizes (Cohen's) were calculated to measure standardized differences between students and patients. (Paper III, Summary.) Comparisons between students' and patients' perceptions in individual items were performed with Pearson's chi square test or Fisher's exact test (Summary).

In order to identify factors related to the type of relationship, both students (Paper IV) and patients (Paper V) were categorized into one of three types of relationship by comparing the means of the sum variables for each of these relationships (MR, AR, FR). Students and patients were allocated to the relationship that showed the highest mean value. This highest sum variable value for each student and each patient was then compared with the median of all values for this sum variable. Students and patients were only categorized into the type of relationship in question if that value was higher than the median. If this median criterion was not met, the student and the patient was not categorized into any of these three types.

The differences between respondents' categorical background variables and type of relationship (MR, AR, FR) were examined with Pearson's chi-square test and Fisher's exact test (when the assumption of chi-square test was not fulfilled). One-way analysis of variance with the multiple comparison methods by Tukey (equal variances) and Tamhane (unequal variances) were used to examine the differences between numerical background variables (age, number of days in hospital) as well as sum variables (SA, PA, AC, SG, SC, PH) and type of relationship (MR, AR, FR). Multinomial logistic regression was used to identify statistically significant factors that predicted the type of relationship. Variables that were expected to be important factors with regard to type of relationship were also included in the model regardless of their significance in the bivariate analysis (Liao 1994; Kwak & Clayton-Matthews 2002). (Papers IV–V.) In all tests, the level of significance was set at $p < 0.05$. The one open-ended question that surveyed respondents' common experiences of the nursing student-patient relationship was not included in the analysis because of the small number of responses.

5.4 Ethical considerations

The research adhered to the general principles of research ethics (Burns & Grove 2001; ETENE 2001; Tutkimuksen eettinen arviointi Suomessa 2006), and there were no special ethical problems. The ethics committees of the hospital districts involved in the study reviewed the research plan to make sure the subjects' human rights were in no way violated. Written permission to collect the data was obtained from the ethics committees as well as from the relevant hospital authorities and the principals of the polytechnics.

In both phases of this study, the participants were asked to give their written or oral informed consent, which is essential for the conduct of ethical research (Robson 1993; Miles & Huberman 1994; Burns & Grove 2001). In **Phase I**, patients gave their consent in writing, students orally (Appendices 2–3). In addition, before each interview the researcher stressed that participation was voluntary. All interviews were tape-recorded with the explicit consent of the participants. The privacy and anonymity of participants was protected throughout the research process. The taped and transcribed interviews were identified by using code numbers. In **Phase II**, the ward manager or supervising nurse who co-ordinated the study submitted the questionnaires to the students and patients who had agreed to participate. A more detailed account of the study was provided in a covering letter (Appendices 7–8). Each student's and patient's

willingness to participate in the study was ascertained by the ward manager or the students' supervisors. Furthermore, consent was assumed by the return of completed questionnaires. (Polit & Beck 2004.) Anonymous questionnaires were returned in sealed envelopes, and only the researcher had access to the raw data.

6 RESULTS

The results of the study are presented in two parts according to the research questions formulated in chapter 4 above. In the first part the focus is on describing the types of nursing student-patient relationship and in the second part on factors related to the type of this relationship. Only statistically significant results are reported.

6.1 Types of student-patient relationship

In **Phase I**, the literature review showed that students' relationships with patients deepen and intensify as they gain more learning experience. In the early stages of their training, students tend to focus mainly on their technical performance and technical skills, and they find it difficult to provide individualized care for patients. As they advance in their training, they develop a wider focus and learn to see the patient as a whole person. (Paper I.)

The interview study on students' and patients' experiences revealed three types of student-patient relationships: mechanistic (MR), authoritative (AR) and facilitative (FR). A mechanistic relationship was described as an externally directed relationship focusing on the student's learning needs. In a mechanistic relationship, the student either observed the nurse's performance or concentrated on performing a single task or set of tasks as well as possible according to the nurse's instructions or a nursing plan. The patient, then, was a passive object who benefited from the student's technical skills. In an authoritative relationship, the focus was on what the student assumed was in the patient's best interest. Here, the student was seen as possessing the know-how that was needed to help the patient satisfy his or her needs, whereas the patient preferred simply to take the help and advice offered rather than express his or her opinions concerning care. A facilitative relationship was characterized by mutuality, focusing on the common good for both the student and the patient. The student was attentive with regard to the patient's wishes, needs and concerns, and by considering and responding to them learned about how best to care for and support the patient. The patient was regarded as an expert of his or her own well-being and thus also as a learning resource who contributed to the student's learning. (Paper II.)

Based on the results of the first phase, the baseline assumption in this study was that the student-patient relationship develops from mechanistically and authoritatively performed interventions by students towards a facilitative relationship. In the second phase of the study, these three types of relationships and their subcategories formed the baseline assumption for the student-patient relationship.

In **Phase II**, a description and comparison of nursing students' and patients' perceptions of the nursing student-patient relationship showed that students viewed this relationship more often as authoritative and facilitative than mechanistic. In the patients' assessments, on the other hand, the authoritative relationship occurred most frequently, followed by the mechanistic and the facilitative relationship. Figure 1 demonstrates that students had lower

ratings for the mechanistic relationship and higher ratings for authoritative and facilitative relationships than patients did. A more detailed comparison of the ratings for the two groups indicated that these differences were statistically significant ($p < 0.001$). At the item level, students had significantly lower ratings than patients on 8 of the 9 items describing a mechanistic relationship, whereas they had significantly higher ratings on 12 of the 13 items describing a facilitative relationship. Furthermore, in the category of an authoritative relationship, students had significantly higher ratings on all items except those describing a relationship focusing on what the student assumed to be best for the patient, patient care decisions taken by the student and the student knowing the patient as a patient with a certain disease, all of which were rated significantly higher by patients. (Paper III.)

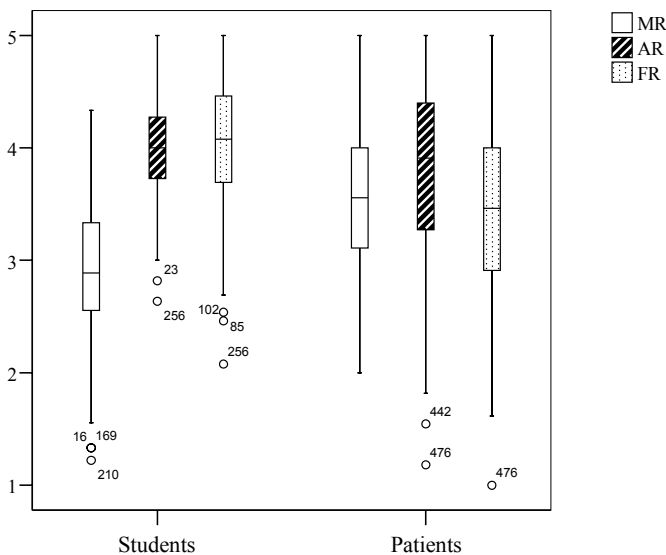


Figure 1 Boxplots of students' ($n=290$) and patients' ($n=242$) scores for their views on mechanistic (MR), authoritative (AR) and facilitative (FR) relationships (Likert scale 1-5). Boxplots show median, first quartile (bottom of the box) and third quartile (top of the box); whiskers denote adjacent lowest and highest values; outliers are marked by closed circles.

Further analysis was based on a classification of students and patients into one of three types of relationship (Papers IV–V). At this stage, 98 students and 76 patients could not be categorized into any of these three types of relationship. The final number of students and patients included in the analysis was thus 192 ($=n$) and 166 ($=n$). The results showed that these students ($n=192$) viewed their relationship with patients more often as facilitative and authoritative than mechanistic (Appendix 9). At the item level, students agreed with most of the items concerning facilitative and authoritative relationships, and neither agreed nor disagreed with the items 'patient care decisions taken by the student', 'student knows the patient with a certain disease' and 'patient gives advice to student'. On the other hand, they slightly disagreed with 4 out of 9 items concerning a mechanistic relationship. Those items were 'students and patient do not know each other', 'student's attention focused on technical performance', 'negligible discussion between student and patient' and 'patient observes student's actions'. Patients ($n=166$), for their part, viewed the relationship most often as authoritative, second most often as mechanistic and third most often as facilitative (Paper V).

Patients agreed with all items concerning authoritative relationships. They also agreed with 6 out of 13 items concerning facilitative relationships. However, they neither agreed nor disagreed with the items concerning conversation on confidential matters and emotions, themselves as experts of their own situation, and their activity in expressing opinions to the student in care-related matters, providing information to the student in matters related to the disease and giving feedback to the student, and disagreed with the item 'patient gives advice to student'. Furthermore, patients agreed with 5 out of 9 items concerning a mechanistic relationship and neither agreed nor disagreed with the statements 'student and patient do not know each other', 'student's attention focused on technical performance', 'negligible discussion between student and patient' and 'patient observes student's actions'.

Students were categorized most often under the facilitative (n=108) or authoritative (n=70) and least often under the mechanistic (n=14) relationship (Paper IV). Patients were more often placed in the category of an authoritative (n=83) or mechanistic (n=56) than a facilitative (n=27) relationship (Paper V). Means and SDs of students' and patients' perceptions of items in different types of relationship are presented in more detail in Appendix 9 and Paper V.

6.2 Factors associated with type of student-patient relationship

In **Phase I**, the literature review revealed a number of factors that have been found to influence the student-patient relationship: these included both students' and patients' mutual prejudices and attitudes, students' previous personal, educational and clinical experiences, patient characteristics, and the quality of interaction between students and patients. Furthermore, the review highlighted the connection between students' personal and professional growth, students' confidence and self-esteem and the relationship with patients. Patients, for their part, have been found to benefit from therapeutic and social interaction with students. (Paper I.) Next, we proceed to look at the results concerning factors related to the student-patient relationship that were inquired in Phase I by means of semi-structured interviews (Paper II) and in Phase II by means of questionnaires (Papers IV–V).

6.2.1 Background factors associated with type of relationship

In **Phase I**, students' previous qualifications were found to have a promoting effect on the forming of relationships with patients. Patients' favourable demographic and diagnostic characteristics contributed to good student-patient relationships, whereas seriously ill patients, patients with pain or with mental or social problems or problems of an intimate nature were seen to have an impeding effect on the relationship. While students' long clinical placement on the ward and patients' long hospital stay were considered to promote the relationship, short stays were seen as impeding it. (Paper II.)

In **Phase II**, student background factors that were found to predict the type of relationship were age, current year of study and support received in the relationship with patient. Older student age was significantly associated with a facilitative relationship. Furthermore, students who were in their fourth year and who had the support of some

person other than a supervisor were more likely to be in an authoritative relationship. (Paper IV.) In the patient data, experiences of caring and size of patient room were related to the type of relationship. Patients in authoritative and facilitative relationships had a named nursing student and a student who had enough time for the patient significantly more often than those in mechanistic relationships. Furthermore, a facilitative relationship was more common among patients in two-patient rooms than among patients in rooms of other sizes. In the patient data, a set of background factors were found to predict the type of nursing student-patient relationship. Among these factors university-level education, several previous hospitalizations, and experience of caring for an ill family member were significantly associated with facilitative relationships. Admission to hospital for a medical problem was also significantly associated with a facilitative relationship, whereas admission to hospital for a diagnostic examination was significantly associated with a mechanistic relationship. (Paper V.)

6.2.2 Contextual factors associated with type of relationship

In **Phase I**, favourable personal qualities in both students and patients, i.e. a personality characterized by a positive frame of mind with a positive perception of self and others, appropriate modes of behaviour, as well as students' intellectual and interpersonal competence were found to promote a positive relationship. Other contextual factors promoting a positive student-patient relationship were a primary nursing system that offered an opportunity to develop a good relationship as well as good role models, support and encouragement offered by staff nurses. Impeding factors were either the opposites of promoting factors, or consisted in the absence of promoting factors. (Paper II.)

In **Phase II**, students' and patients' assessments of contextual factors showed that, in general, they had positive perceptions of student's personal and professional attributes (SA), of patient's attributes as a patient (PA) and of the atmosphere during collaboration (AC). A comparison of students' and patients' results for contextual factors indicated that patients' sum variable mean for atmosphere during collaboration was higher than the corresponding one for students (Figure 2), and the difference was statistically significant at the p-value level of <0.001 (Appendix 10). At the item level, patients' ratings of the atmosphere during collaboration were significantly higher than students' ratings on four out of five items, whereas the opposite was true for the item describing the privacy of student-patient interaction. Neither the sum variable mean value for student's personal and professional attributes nor patient's attributes as a patient differed significantly between students and patients. However, at the item level students gave significantly higher ratings than patients on the following 5 out of 8 items concerning their own personal and professional attributes: sense of humour, empathy, ability to deal with patient feedback, ability to perform care-related activities with care, and ability to discuss issues in a natural, unforced manner. Furthermore, students' ratings of patients' attributes as a patient, i.e. their willingness to talk about one's own situation and sense of humour, were significantly higher than the corresponding ratings of patients. Patients, for their part, gave significantly higher ratings than students on items concerning the student's ability to answer patient's questions as well as their own mood, need for help with daily activities, attitude to student learning and commitment to self-care. (For p-values and effect sizes, see Appendix 10.)

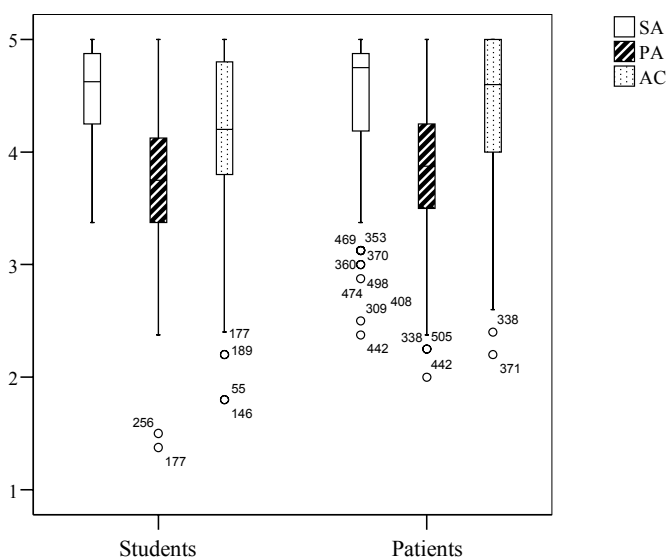


Figure 2 Boxplots of students' (n=290) and patients' (n=242) scores for their views on student's personal and professional attributes (SA), patient's attributes as a patient (PA) and atmosphere during collaboration (AC) (Likert scale 1-5). Boxplots show median, first quartile (bottom of the box) and third quartile (top of the box); whiskers denote adjacent lowest and highest values; outliers are marked by closed circles.

Bivariate analysis of the factors related to the type of relationship revealed that in authoritative and facilitative relationships, students had positive perceptions of patient's attributes as a patient significantly more often than in mechanistic relationships. Furthermore, in authoritative relationships they had positive perceptions of the atmosphere during collaboration significantly more often than in mechanistic relationships. (Paper IV.) Patients, for their part, had a positive perception of student's personal and professional attributes significantly more often in authoritative and facilitative relationships than in mechanistic relationships. Multinomial logistic regression revealed that patients' positive perceptions of their own attributes as a patient were significantly associated with a mechanistic relationship, whereas their positive perceptions of student's personal and professional attributes were significantly associated with an authoritative relationship. Furthermore, patients' positive perception of atmosphere during collaboration was found to be significantly associated with a facilitative relationship. (Paper V.) Mean values and SDs for questions concerning contextual factors related to the type of relationship are presented in more detail in Appendices 11 and 12.

6.2.3 Association between consequences of the relationship and type of relationship

In **Phase I**, students' personal and professional growth and improved competence and self-esteem emerged as positive consequences for students, and patients' improved state of health and self-care proved to be positive consequences for patients. However, feelings of failure were also evident among some students. The consequences of the relationship are presented in more detail in Paper II.

In **Phase II**, both students and patients rated highly student's personal and professional growth (SG) and student's increased confidence and self-esteem (SC), students significantly more so ($p < 0.001$) than patients. At the item level students gave significantly higher ratings than patients on 9 out of 10 items concerning their personal and professional growth (SG) and increased confidence and self-esteem (SC). The opposite was true with regard to patient's improved health and commitment to self-care (PH) at the sum variable level ($p=0.001$) and also at the item level, with just one exception. (Figure 3, for p-values and effect sizes, see Appendix 10.)

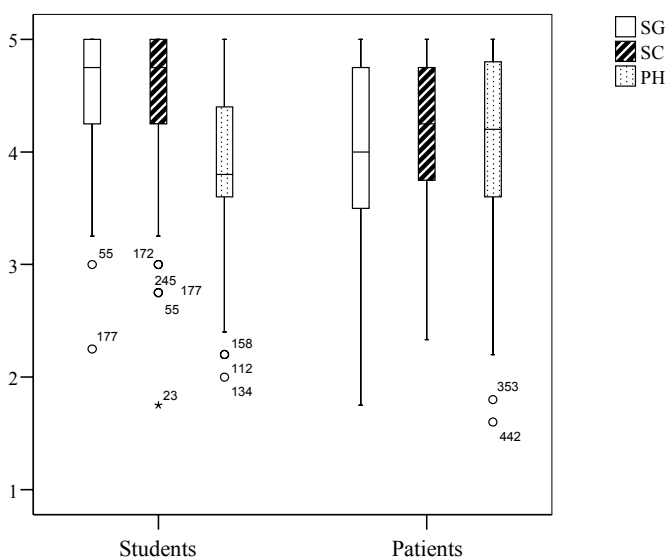


Figure 3 Boxplots of students' ($n=290$) and patients' ($n=242$) scores for their views on student's personal and professional growth (SG), student's increased confidence and self-esteem (SC) and patient's improved health and commitment to self-care (PH) (Likert scale 1-5). Boxplots show median, first quartile (bottom of the box) and third quartile (top of the box); whiskers denote adjacent lowest and highest values; outliers are marked by closed circles; extreme values are marked by an asterisk.

Both students and patients had positive perceptions of patient's improved health and commitment to self-care significantly more often in authoritative and facilitative relationships than in mechanistic relationships (Papers IV–V). Furthermore, patients in authoritative relationships had more positive perceptions of student's personal and professional growth and student's increased confidence and self-esteem than in mechanistic relationships. Multinomial logistic regression analysis showed that positive patient perceptions of student's personal and professional growth were significantly associated with facilitative relationships. Positive patient perceptions of their improved health and greater commitment to self-care, on the other hand, were found to be significantly associated with an authoritative relationship. (Paper V.) Mean values and SDs for questions concerning the consequences of the relationship are presented in more detail in Appendices 11 and 12.

7 DISCUSSION

The literature review showed that there is comparatively little earlier research into the student-patient relationship, highlighting the need for more work in this field. The purpose of this study was to analyse the nursing student-patient relationship and factors associated with this relationship from both the students' and patients' point of view, and to identify factors that predict the type of relationship. The ultimate goal is to improve supervised clinical practicum for students with a view to supporting their reciprocal collaborative relationships with patients, to increasing their preparedness to meet patients' health needs, and thus to enhancing the quality of patient care. The discussion that follows provides an overview of questions of validity and reliability, looks at the main results and conclusions of the study, and offers suggestions for further research.

7.1 Validity and reliability of the study

The validity and reliability of the study are discussed under three separate sections, focusing on the validity and reliability of the data, the research process and the instruments used.

7.1.1 Validity and reliability of the data

This section addresses the validity and reliability of the data collected for this study: the articles included in the literature review (Paper I) and the empirical data collected in the first (Paper II) and second phases of the study (Papers III-V).

In **Phase I**, the literature review was confined to studies derived from the two electronic databases, MEDLINE and CINAHL, that are considered most likely to be useful to nurse researchers (Polit & Beck 2004). Even though these two databases are well known and included 104 articles on this subject, it is possible that some relevant articles remained undetected (Burns & Grove 2001). On the other hand, some of the studies reviewed were not directly concerned with the student-patient relationship, but covered a number of related topics at the same time. This made it difficult to classify articles as belonging to a specific category. However, the literature reviewed consisted chiefly of primary source research reports that approached the issue from the point of view of the student-patient relationship and that were thus considered necessary in order to summarize the existing knowledge (Polit & Beck 2006). Because of the scarcity of research from the patient's perspective, the emphasis in the review was very much on the student's perspective. The literature review can, however, be considered to provide a representative overview of research into the student-patient relationship. The review clearly lended support to the need to study the student-patient relationship from the point of view of both students and patients. It is also worth noting that most of the previous studies have been carried out in the United States and the UK. However,

even though the health care, educational and clinical practice systems differ in different countries, the issue is certainly relevant to the education of nurses in Finland.

In **Phase I**, an important sampling criterion for the interview study was that the respondents had something to say about the subject in hand. In this case, the participants were nursing students (n=30) and internal medicine patients (n=30) with personal experience of student caring and patient involvement in the student learning process during students' clinical placement. This person triangulation was used in order to validate the data through both student and patient perspectives on the phenomenon (Burns & Grove 2001; Polit & Beck 2004). The sample sizes for the interview study may be considered adequate because saturation was reached in data collection: an increased number of interviewees would not have altered the findings (Catanzaro 1988). It is possible that participants with mainly positive experiences are more likely to be selected among the interviewees and in this way were differentiated from those students and patients on internal medicine wards who did not participate in this study. In Phase I, the aim was to gain an overview of students' and patients' insights into the student-patient relationship and to obtain information for purposes of designing structured questionnaires. However, the conclusion of transferability to other similar clinical contexts can be made, based on the descriptions of the sample and setting (Robson 1993; Miles & Huberman 1994). (Paper II.)

In **Phase II**, the data were collected from nursing students and patients on internal medicine wards at all Finnish university hospitals and at five out of sixteen central hospitals from different parts of the country. This meant that the choice of hospitals reflected the use of specialized health care services in Finland. In 2005, internal diseases represented the second largest area of somatic specialized care when measured in terms of patient numbers (152,755 patients) and the largest specialism when measured in terms of hospital bed days (1,356,399 days) (Stakes 2006). Sample representativeness can be evaluated not only in terms of the research setting, but also in terms of the subjects' characteristics (Burns & Grove 2003). According to the statistical summary published by Stakes in 2006, the mean age of internal medicine patients in 2005 was 65 years, 49% of them were male, 62% were admitted because of an emergency, and the mean duration of the patients' hospital stay was 5.7 days. In terms of these characteristics, then, the patients included in the sample were representative of all internal medicine patients in Finland. No corresponding statistical data were available for students on their age, gender, degree programme, current year of studies, and duration of clinical placement, but the student sample recruited from all stages of nursing education can be considered representative of Finnish-speaking students studying for the degree of Bachelor of Health Care. However, the participants may have differed in important respects from non-participants, which might decrease the generalizability of the results (Burns & Grove 2001).

One of the limitations of this study was that large numbers of patients on internal medicine wards were unable to answer the self-administered questionnaire and participate in the study. It is also likely that there has been some selection bias because the participants were recruited by the ward managers and supervising nurses on the basis of the sampling criteria specified for this study, and thus some potential

participants may have been excluded even though they met the study criteria. Furthermore, some of the follow-up forms (Appendix 5) were not filled by ward managers or the supervising nurses. It was therefore not possible to report the characteristics of the students and patients who were approached but who refused to participate or who did not return the questionnaire. Some subject mortality also occurred due to deterioration in patient health. On the other hand there were also patients (n=35) who failed to complete the questionnaire correctly and who therefore had to be excluded from the analysis. (Paper III.)

In paper III, response rates ranged from 94% to 96%. In papers IV and V, the samples represented 62% of all students and 54% of all patients recruited, which raised serious questions about the representativity and validity of the data. The sample sizes, as determined by power analysis in the first and second phases, were more than adequate at the $p < 0.05$ level of significance (Papers III, V). Students who could be categorized into one of three types of relationship were those whose clinical placement lasted six weeks or less ($p = 0.037$). Furthermore, the mean age of patients who could be categorized into one of the three types of relationship (60.1 years) was significantly closer to the mean for internal medicine patients as published by Stakes (2006) than the mean age of those patients who could not be categorized into any type of relationship (55.0 years) ($p = 0.022$). Previous experience of student participation in care ($p = 0.038$) and the experience that the student had enough time for the patient ($p = 0.001$) were also significantly more common among those patients who could be categorized than among those who could not. The results of the study are thus to some extent specific to the sample. They can, however, be generalized to nursing students and patients on internal medicine wards and, with caution, to other inpatient settings and community care across Finland.

7.1.2 Validity and reliability of the research process

The validity and reliability of the research process are discussed by reference to the methods of data collection and analysis. In this study, the interviews can be considered to have yielded more in-depth information on the student-patient relationship (Paper II) than the self-administered questionnaires (Papers III-V), but on the other hand the results from the questionnaires have more value in terms of generalizability (Burns & Grove 2001).

In **Phase I**, the data were collected in semi-structured interviews. To enhance credibility, data were collected from both the students' and patients' perspectives on the phenomenon (Polit & Beck 2004). The interviewees were presumed to have personal experience of the student-patient relationship and thus to be good informants on the subject. However, they may have had selective perceptions of their experiences and it is possible that another sample of interviewees would have produced different results. In face-to-face situations the participants proved to be well motivated to respond. Many students felt that the interview itself was a useful learning experience, for it made them consider aspects of the patient relationship that they had never discussed with other students, their teachers or staff members. Patients, however, may have been somewhat cautious in criticizing the students.

The researcher's qualifications and experience are important in establishing confidence in the data (Polit & Beck 2004). In the present case the researcher was an experienced nurse and nurse teacher with a deep familiarity of the research setting. However, the researcher was an outsider in the organizations involved in the study, which contributed to the creation of a confidential interview atmosphere and a neutral attitude towards the research during data collection and analysis. The interview data were complemented by collecting background data on the interviewees and by taking field notes after each interview on the researcher's general impressions about the interviewee and the interview situation and her own success. These notes provided valuable guidance for planning subsequent interviews and helped the researcher recollect details of the interview situation during data analysis (Catanzaro 1988). Feedback from the study participants regarding the emerging data and interpretations could have been used to ensure credibility (Catanzaro 1988, Appleton 1995, Polit & Beck 2004). However this was not feasible because the participants could not be reached after the students had completed their clinical practicum on the ward and the patients had been referred to further treatment.

Content analysis must be an objective process (Berelson 1952; Miles & Huberman 1994). In this study, the researcher analysed the data from the tape-recorded and transcribed interviews, trying to maintain a neutral stance. The results of the analysis were confirmed by coding the data twice at intervals of four months; on both occasions the outcome was the same. (Berelson 1952; Krippendorff 1980; Appleton 1995.) In reporting the results, the contents of different categories are described by reference to subcategories and coded expressions. Direct excerpts are used to increase the reliability of the results and to show to the reader how and from what original sources the categories have been formed (Table 1 in Paper II). As far as reliability is concerned it is noteworthy that many sentences include more than one theme and that it has been very difficult and time-consuming unambiguously to identify and code these themes (Holsti 1968, 1969).

In **Phase II**, data collection was by means of structured questionnaires (SPR scales). According to Burns and Grove (2001) a number of factors may contribute to errors in the measurement process. In this study, the respondents were not necessarily motivated to answer or they felt it was difficult to answer the questions presented if they had no named patient or student. Fatigue caused by the need to reconcile studies and work and in the case of patients by illness may also have detracted from both the students' and patients' interest in the questionnaire. Secondly, patients completed the self-administered questionnaire before they were discharged from hospital, and students during their clinical practicum. Responses may thus have varied depending on the degree of privacy that the respondents had in completing their questionnaires (Burns & Grove 2001). Furthermore, in spite of the instructions, some questionnaires were taken home and returned later on by mail, possibly increasing the influence of other persons. Thirdly, the research environment was a clinical setting where it was easy to reach the participants and thus to organize data collection very efficiently. A pilot study to test the data collection procedures and the use of ward managers and students' supervisors as coordinators of data collection proved very useful. However, it is possible that there were some differences in the way that the questionnaires were administered and in the instructions that were given to the participants on different wards. Validity was

enhanced by informing the ward managers and supervising nurses about the research project, the instruments to be used, sample selection and data collection before and during the study. In addition, each staff member involved in data collection was met personally or contacted by phone to evaluate the data collection process, and to ensure its consistency. Overall, data collection required more time than was anticipated in order to achieve an adequate sample size: this was due to a smaller than expected number of students and patients on the wards who met the study criteria. This may have contributed to a less than rigorous and consistent data collection process.

7.1.3 Validity and reliability of the instruments

This section discusses the validity and reliability of the instruments in the first (Paper II) and second phases (Papers III–V) of the study.

Content-related validity evidence was obtained from the following sources: a literature review, an interview study and an expert panel. In **Phase I**, the interview themes were chosen on the basis of a literature review (Paper I). To test these themes, five patients and five students were interviewed. No changes were considered necessary based on the results. The SPR scales used in **Phase II** were designed on the basis of a literature review (Paper I) and an interview study (Paper II). The content validity of the questionnaires was evaluated by using a panel of nurses (n=12) and a university researcher (n=1), all experts on the subject under investigation. The experts were asked to evaluate individual items as well as the entire instruments: their item relevance, clarity and readability and whether the items adequately measure the construct (Burns & Grove 2003). Based on the panel's suggestions, 21 items were deleted, 2 items were added and the wording of some items was revised.

A pilot study was conducted to test the revised questionnaires with nursing students (n=33) and patients (n=28) on internal medicine wards in one university hospital district in southern Finland. The participants were selected in the same way as the final respondents and they answered the questionnaire independently. Based on the results, two items were deleted. Furthermore, background items in the student questionnaire were clarified. The questionnaires were based on parallel items for students and patients, and differed only in their background/demographic items. However, it is important to keep in mind that the self-administered scales developed in this study assess the respondents' perceptions: they cannot be used to assess how students and patients actually behave or interact in their relationship. Furthermore, the student-patient relationship was evaluated by two different samples. (Paper III.)

Construct validity examines the fit between the conceptual definitions and operational definitions of variables (Burns & Grove 2001). In this study, principal component analysis (PCA) was used to examine the construct validity of questionnaires in order to find out whether the instrument actually measured the theoretical construct derived from the literature (Paper I) and the interview study (Paper II). The components obtained by PCA, corresponding with the original three types of relationships (mechanistic, authoritative and facilitative relationship) based on the whole data set of 290 students and 242 patients, are presented in Paper III. A second principal component analysis (PCA)

was conducted to examine the construct validity of the whole instrument using the data set of students (n=192) and patients (n=166) categorized into one of three types of relationship (Summary). In the student data, the three component model explained 34.1% of the variation in the type of relationship category, 43.8% of the variation in the contextual factors category, and 55.0% of the variation in the consequences of the relationship category. In the patient data, the three component model explained 42.7%, 51.2%, and 67.8% of the variation, respectively. In both data sets the closest correspondences between sum variables and PCA components were obtained for the consequences of the relationship. The PCA components corresponded more closely with the theoretical construct derived from the literature and interview data in the student data than in the patient data. PCA lent partial support for the structure obtained from the literature review and interview data. (Appendix 13.) Therefore, the instrument needs to be further developed and tested, especially as regards the sum variables that measure students' and patients' views of the types of relationship.

The internal consistency reliability of the SPR scales was evaluated in both phases using Cronbach's coefficient alpha. Cronbach alpha coefficients of around 0.70 (Nunnally & Bernstein 1994; Burns & Grove 2001) or even 0.60 (Knapp & Brown 1995) are considered acceptable in newly developed instruments. The alpha coefficients for the sum variables varied between 0.456 (MR perceived by patients in pilot study) and 0.883 (SA perceived by patients, n=242). In Phase II, the results indicated modest reliability with the single exception of PA perceived by patients (n=166), which did not reach the guideline criteria (e.g. 0.60). The range of alpha coefficients is presented in Appendix 14.

7.2 Discussion of the results

Finally, the discussion below proceeds to assess the results of this research against earlier studies. Following an examination of the different types of student-patient relationship, we also consider related factors, i.e. background factors, contextual factors and consequences of the relationship.

The types of relationship that emerged as novel categories in this study were mechanistic, authoritative and facilitative relationships. These relationships and their subcategories describe the intensity of students' relationships with their patients. These relationships range from those in which students focus on their own learning needs, on their intent to acquire knowledge and technical skills, through those in which students focus on what they assume is in the best interests of patients while planning and providing care and patient education, to those in which the relationship is characterized by mutuality, focusing on the common good for both students and patients so that students are attentive to the patient's wishes, needs and concerns and learn to care for and support the individual patient. These results are confirmed by earlier descriptions of the relationship between students and patients (Kelly 1992, 1996; Leino-Kilpi 1993; Seed 1994; Fagerberg & Kihlgren 2001; Watson et al. 2001; White 2003; Granum 2004; Mikkonen 2005; Orland-Barak & Wilhelem 2005; Peyrovi et al. 2005). Furthermore, earlier studies have offered definitions of authoritative and facilitative

interventions in the context of nursing students' interpersonal competence that are consistent with the authoritative and facilitative relationships suggested in this study. Authoritative interventions are those that enable the student to maintain some degree of control over the relationship, whereas facilitative interventions are those that emphasize patient-centred approaches and that allow patients to be experts of their own well-being and to take an active and responsible role in care and decision-making. (Morrison & Burnard 1989; Ashmore & Banks 1997, 2004.) Although earlier research does offer useful descriptions of the content of this relationship, it has no descriptions of the different types or categories of the student-patient relationship. The three types of relationship discovered in this study are intended to contribute to an understanding of the student-patient relationship that is essentially different from the relationship between qualified nurses and patients. Furthermore, it is suggested that these three types of relationship all exist in students' clinical practicum.

The results indicated that students tended to view their relationship with patients as more facilitative and authoritative, whereas patients regarded the relationship as more authoritative and mechanistic. Furthermore, these differences between students' and patients' views on their relationships were significant. Earlier research has found that some students look upon patients as independent and active participants instead of recipients of care (Sarajärvi 2002), and even as learning resources for students (Raj 2000; Mikkonen 2005). However, this is refuted by other studies which point out that students tend to focus on task-oriented nursing and on addressing the patient's physical needs rather than on fostering cooperation with their patients (Morrison & Burnard 1989; Salmio 1990; Munnukka 1996; Karttunen 1999; Jaroma 2000; Sarajärvi 2002). Patient reports of the student-patient relationship in this study seem to confirm that only few patients take the opportunity to direct their care or contribute to student learning (Morgan & Sanggaran 1997; Hills 1998; White 2003). The differences between the two different samples, however, may have contributed to the differences seen in the results. Another possible explanation for the differences between students' and patients' views may be that students' assessments are based on an idealistic stance rather than real experiences of forming a relationship with patients. Patients' assessments, for their part, may reflect their own subjective caring experiences. Indeed it may be concluded that students' and patients' perceptions differed to such an extent that it is necessary to consider the views of both parties in order to obtain a reliable analysis of their involvement in the relationship.

The kind of facilitative relationship described in this study may be regarded as the ideal to be pursued: the emphasis in this relationship is firmly on collaboration with the patient, which is a key precondition for the provision of high-quality care. It was encouraging to see that students gave high ratings for a facilitative relationship in which the student and patient have shared views on how to act and in which students attempt to satisfy the needs of individual patients. Facilitative relationships with patients also help students to meet the requirements set for the nursing profession, especially the skills of interaction and collaboration that are needed in order to meet patients' expressed wishes and needs (Taskinen et al. 1995; Latvala & Janhonen 1996; Sosiaali- ja terveystieteiden ministeriö 2003; Opetusministeriö 2006). Both students and patients benefit from a facilitative relationship in a mutually empowering manner. This means that patients, in their capacity as experts of their own situation, can act as students' learning resource by sharing their personal

experiences about their health, about how their illness impacts themselves and their families and about how interventions by students enhance their well-being. Listening to patients' stories helps students develop their sensitivity to patients' real needs and thus ultimately enhances the quality of care. This naturally requires that patients are well informed about everything that concerns student participation in their care and that they themselves are willing to participate in student learning.

Student background factors that significantly predicted the type of relationship were age, current year of study and support received in the relationship with patient. Students' age was the only background factor that predicted a facilitative relationship; the higher the student's age, the more likely the relationship with the patient was facilitative. Results from earlier studies do not support this, but show that favourable attitudes towards patients among students in older age brackets either increase or decrease (Thompson 1991; Rolfe 1994; Hweidi & Al-Obeisat 2006), which thus either promotes or impedes their relationships with patients. However, it has been found that the command of nursing functions improves with advancing age (Räsänen 2002). One possible explanation as to why age predicts the type of relationship is that students in older age groups are more confident and more prepared to take the initiative in encountering different people. It is also possible that young students have felt that patients consider them inexperienced because of their youth: this will affect patients' willingness to give these students the chance to care for them and thus also impede their willingness to enter into a collaborative relationship with the student (Morin et al. 1999; Kotzabassaki et al. 2002; Sheu, Lin & Hwang 2002.) In contrast to what one might have expected, students who were just about to graduate showed a tendency towards an authoritative rather than a facilitative relationship (cf. Leino-Kilpi 1993). One possible explanation could be that even though students regard their involvement with patients necessary, it is difficult for them to establish a relationship with the patient on acute internal medicine wards. In acute care settings students who are just about to graduate may feel a strong need to strengthen their mastery of nursing functions through authoritatively performed interventions. Furthermore, students may be inclined to seek support from persons other than their supervisor, because they may fear that if they turn to their supervisor; that might negatively affect their assessments.

Among patients, background factors significantly associated with a facilitative relationship were university-level education, several previous hospitalizations, admission to hospital for a medical problem, and experience of caring for an ill family member. These results are supported by findings which indicate that patients with knowledge and experience of illness and care are well equipped to share their knowledge of illness and care with students and thus to teach them how to deal with different situations (Morgan & Sanggaran 1997; Suikkala & Leino-Kilpi 2001; Mossop & Wilkinson 2006). Apart from patient's educational level, then, special attention should be paid to patients who are admitted as emergency patients. Emergency patients account for two-thirds of all patients admitted to internal medicine wards (Stakes 2006). It is essential therefore that in the supervision of students working with these patients, special attention is given to their ability to develop a sound relationship and to making sure the conditions are in place for continuing and progressing relationships between the same students and patients (see also Vesanto & Munnukka 1996).

Analysis of the patient data revealed **three significant contextual factors** that predict the type of student-patient relationship: student's personal and professional attributes, patient's attributes as a patient and atmosphere during collaboration. Firstly, the results suggest that students' personality, conduct and behaviour are important in encountering patients and getting involved with them, and student's personal and professional attributes seem to predict an authoritative relationship. Several studies also show that the quality of the relationship is related to the student's interpersonal skills (Andresen & McDermott 1992; Richards 1993; Wheeler, Barrett & Lahey 1996; Drew 1997; Morgan & Sanggaran 1997; Edwards 2000; Ashmore & Banks 2002), professional behaviour (Morin et al. 1999; Patterson & Morin 2002; Mossop & Wilkinson 2006) and competence (King, Aamodt & Wolanin 1986; Leino-Kilpi 1993; Gunby 1996; Beck 1997; Turunen 1997; Karttunen 1999; Sadala 1999; Kotecki 2002; Eifried 2003; Mikkonen 2005; Baxter & Rideout 2006). Secondly, patients with a positive perception of themselves and those admitted to hospital for a diagnostic examination or as emergency patients show a tendency towards a mechanistic relationship. One possible explanation is that patients who feel they are in good physical health also have less need for help with daily activities, which means that students' contacts with these patients will be very brief and centred on the performance of a single nursing task or set of tasks. Emergency patients, for their part, may prioritize technical rather than interpersonal interventions in their care. Students' positive perceptions of patients' attributes as patients, on the other hand, seem to be related to authoritative and facilitative relationships, but this association is not as clear as that discovered in the patient data between patients' perceptions of themselves as patients and the type of relationship. Thirdly, a positive atmosphere during collaboration was significantly associated with a facilitative relationship. The significance of staff nurses' performance with the student as role models (Nelms, Jones & Gray 1993; Kosowski 1995; Kelly 1996; Vesanto & Munnukka 1996; Fagerberg & Ekman 1997; Turunen 1997; Rajj 2000; Beck 2001; Randle 2001; Kotecki 2002; Tuohy 2003; Baxter & Rideout 2006; Mackintosh 2006) and their ability to create a supportive atmosphere (Kelly 1992, 1996; Johnson 1994; Hills 1998; Hjörleifsdóttir & Carter 2000; Fagerberg & Kihlgren 2001; Patterson & Morin 2002; Papp et al. 2003; White 2003; Lemonidou et al. 2004; Cunningham et al. 2006) influence students' performance and collaboration with patients and thus also patients' satisfaction with the student-patient relationship. Even though students highlight the importance of a supportive atmosphere and supervisory relationship in clinical practicum (Koskinen & Silen-Lipponen 2001; Saarikoski 2002; Sarajärvi 2002; Papp et al. 2003; Salmela 2004), the present findings suggest that these factors are related to the guidance and support they need in authoritative relationships. In contrast to earlier results, the findings here did not indicate that fellow students are an important source of support in issues concerning relationships with patients (Eifried 2003; Lemonidou et al. 2004; Peyrovi et al. 2005; van Rooyen et al. 2005). This might be due to the fact that the students in this study did not necessarily know other students in the same programme and thus did not consider themselves a team in which they feel comfortable asking for peer support or sharing clinical experiences.

In the patient data, **two significant consequences of the student-patient relationship** that predicted the type of relationship were student's personal and professional growth

and patient's improved health and commitment to self-care. The results lend support to the significance of a facilitative relationship in promoting students' personal and professional growth, thus suggesting that patients as health care consumers attach great importance to the social interaction and reciprocal collaborative relationships that students have with patients in their training to become qualified nurses. Patient's improved health and commitment to self-care, however, was associated with an authoritative rather than facilitative relationship, suggesting that patients benefit especially from patient care and education delivered by students (Pulliam 1991; White 2003; Kaymakçi et al. 2006). One explanation for this is that students, especially if they are assigned to a specific patient, have more time to spend with the patient and to provide care and patient education than staff nurses usually do. In the student data, further analysis of the consequences of the relationship did not, however, reveal any association either between students' personal and professional growth or their increased confidence and self-esteem and the type of relationship. According to the interview study, the consequences of the student-patient relationship are mostly positive both for student's personal and professional growth and improved confidence and self-esteem, and for patient's improved state of health and commitment to self-care. Numerous studies have also shown that positive experiences with patients contribute to student's personal and professional growth (King et al. 1986; Hentinen 1989; Klisch 1990; Thompson 1991; Beck 1992, 1993, 1997, 2001; Nelms et al. 1993; Richards 1993; Rohde 1996; Arnold 1997; Drew 1997; Kotecki 2002; Eifried 2003; White 2003; McLafferty & Morrison 2004; Mikkonen 2005). Furthermore, it has been found that students' awareness of their moral values (Lemonidou et al. 2004) and their moral judgement (Auvinen, Suominen, Leino-Kilpi & Helkama 2004) increase especially among those students who encounter ethical problems in clinical practice.

7.3 Conclusions and implications

Based on the results of this study the following conclusions and implications are presented as regards nursing student-patient relationships.

1. The professional nurse-patient relationship is an important aspect of nursing care, and one that should be emphasized in nursing education. This study identified three types of relationship that occur between students and patients: mechanistic, authoritative and facilitative. This categorization will help students, staff nurses and teachers better understand the phenomenon and be sensitized to the different types of this relationship. Among these types of relationship, the facilitative student-patient relationship is regarded as the ideal to be pursued: it will help students meet their qualification requirements and develop the professional skills they will need in the nursing profession and also satisfy the ethical requirements of patient autonomy and self-determination. This emphasis on the facilitative relationship in clinical learning does not, however, mean that students' learning needs with respect to gaining the necessary competencies in nursing procedures or their efforts to improve patients' health and commitment to self-care through authoritative interventions should be underestimated.

2. Most patients are willing to take part in students' learning, but there is much variation between individuals. It is therefore paramount that the patient's right to self-determination is respected when they are asked to participate in student learning. Patients' informed consent should be asked by the supervising nurse in a situation where the student concerned is not present. In the case of patients who are willing to take part in educational activities, there is the need to develop strategies that will encourage them to take a more active role in students' learning and thus empower them, with the end result of enhancing the quality of care.

3. Patients could be asked to assess the performance of students in care provision, either when students are working on their own or together with a nurse, and to take note of students' performance in helping patients with their needs, and whether they are kind, patient and empathetic towards patients. These assessments provide valuable feedback on the professional performance of students and therefore on the quality of education.

There are a number of factors that are worthy of note with respect to promoting the establishment of student-patient relationships.

1. Students' personal and professional attributes should be given closer attention when assessing students' learning goals and need for guidance and support in relationships with patients in clinical placements. In particular, younger students may need additional support in their encounters with patients.

2. The type of student-patient relationship seems to depend on patients' experiences of their illness and its treatment, the seriousness of the situation, and the level of nursing assistance required. If the patient's needs are considered minor, the contact between student and patient might be brief and no connected relationship may develop at all. On the other hand, among patients requiring complex care, students may feel unprepared or unsure about what to say to the patient, or they may simply concentrate on performing their tasks as instructed by nurses. It is particularly important in supervision that students are encouraged to try to get to know their patients and their needs and to interact with patients at the same time as they perform their tasks or practise their technical skills. As students find it difficult to develop relationships and interact with certain patients, greater attention should also be paid to providing appropriate clinical placements so that students have enough clinical competence in caring for and interacting with patients.

3. More attention needs to be given to building relationships between students and patients and providing support for students. Students should be given the opportunity to engage in primary nursing care with a view to establishing collaborative student-patient relationships. In order that students can learn to see and accept patients as experts of their own experience, it is necessary for teachers to take a positive view on patients' accounts of their experiences and for staff nurses to implement facilitative interventions. As the supervising nurse is often involved as a third, more or less active party in the collaboration between student and patient, it is preferable to encourage students to interact with the patients, while the supervising nurse should only take part in the conversation if that is necessary for support and encouragement. Furthermore,

privacy in nurse-patient interaction is important for patients, and this also applies to their relationships with students.

4. Students should be given more time and opportunities to share and reflect on their feelings, experiences and ethical issues related to patient relationships together with qualified nurses, teachers and peers. This should be in a safe environment without students having to feel that they are under pressure of assessment. The use of collaborative learning, for example, would be a feasible way of helping students to transform their experiences with patients into learnable skills for themselves and thus enhance their relationships with patients.

5. Student-patient relationships in clinical placements should be based on the assumption that these relationships benefit education and patient care and thus contribute to an enhanced quality of care. In addition to students' personal and professional growth and their increased confidence and self-esteem, the sense of success achieved in patient relationships and the reinforced motivation to pursue a career in nursing are important benefits that will help to guarantee a high quality of nursing care in a situation of ever greater staff shortages.

7.4 Suggestions for further research

There are several important and unexplored areas in the student-patient relationship and related factors that warrant further research. Most importantly, this is true of the role of the student-patient relationship in developing new educational approaches geared to ensuring high quality patient care.

This study produced useful preliminary information on the student-patient relationship and associated factors. The categories identified are novel and therefore further research is needed to establish whether it is possible to extract any additional relevant categories. For this purpose it will be important to test and further develop these categories by using both qualitative and quantitative research methods. In particular, data should be collected in new samples of Bachelor of Health Care students and patient groups in different clinical settings to confirm the present findings regarding the crucial types and characteristics of the student-patient relationship and to establish whether the care setting (e.g. specialized care environment, PHC ward at health centres, municipal home visit care) is associated with the level of involvement and type of student-patient relationship. Furthermore, an international comparative study might be useful to test the feasibility of the categories identified and to see whether the student-patient relationship is culturally conditioned.

There is a need to gather more evidence on the development of the student-patient relationship over time by monitoring students throughout their education using longitudinal research techniques. In addition to questionnaires and interviews, the methodology of participant observation and reflective diaries with critical learning incidents could be used to explore the essence of the relationship. The data could initially be collected at the outset of nurse education, with the same study then replicated once a

year and finally after graduation in order to establish how students' competence in working with patients has changed as they gain more clinical experience.

More in-depth studies are needed to analyse the factors related to the student-patient relationship. Student-patient relationships always involve reciprocal expectations and perceptions, such as of the attributes and actual behaviour of the student and patient. It is therefore important to explore in more detail the factors that promote or impede contacts between students and patients in different areas of patient care in order to help students improve their relationships with patients and to learn how to work more closely with patients in a collaborative, goal-oriented relationship. More research from patients' point of view, focusing particularly on patients' wishes and experiences with regard to the presence and involvement of nursing students in their care and the relationship with a student, is needed so that clinical instruction can be developed in such a way that patients themselves can feel they have contributed positively to the student learning process.

More evidence is needed in nursing education about the student-patient relationship so that teaching and learning methods can be developed that support collaborative and patient-centred nursing. Research is therefore needed to explore how different teaching and learning methods can be used to support students' relationships with patients. One option is to conduct intervention studies in clinical placements or in simulated situations.

The SRP scales could provide a useful instrument for purposes of systematically measuring the student-patient relationship as part of student evaluations in clinical placements. The wider use of these scales in different kinds of clinical placements would allow them to be further tested and developed with the ultimate aim of harmonizing student evaluation criteria. Therefore their use for purposes of evaluating student performance in clinical practicum deserves closer research. The development of a computer-based instrument that allows the user to obtain a profile of the type of relationship might be particularly useful for students. A computer-based instrument could be used in real and simulated relationships with patients in order to help students become more aware of and to develop their own actions with patients and thus achieve the professional requirements set for skills of interaction and collaboration with the patient. Patients' experiences and perceptions could be included as part of the student's assessment by collecting feedback from patients using a modified paper version of the tool. Students' and patients' assessments can be compared at single points, but also used for ongoing evaluations as students advance in their training. Furthermore, the results of these evaluations provide useful clues for the development of nursing education more generally.

Further testing is needed to establish the feasibility of the instrument developed here by using a heterogeneous sample from a variety of different settings and to determine whether it provides reliable and valid measurements of the student-patient relationship and associated factors. In particular, the construct validity of the types of relationship needs further consideration. The instrument needs to be further improved and modified for use in clinical placements on internal medicine wards, but also in other areas of specialized health care and in primary health care.

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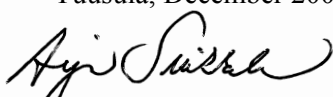
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Arja Suikkala

Appendix 1 Studies of nursing student-patient relationship (1999-2007)

1(13)

Students' experiences and perceptions of their relationship with patients

Author(s), year and country	Purpose	Sample	Methodology	Main results
Han & Ahn 2000, Korea	To analyse the types and frequency of ethical dilemmas and analyse and evaluate the rationale of ethical decision-making by student nurses.	100 students	Qualitative and quantitative methods	The most common rule of ethics and principle applied were veracity and nonmaleficence. Most student nurses' primary concern was the welfare of patients.
Beck 2001, USA	To present a perspective of caring in nursing education.	14 qualitative research studies	Metasynthesis	The metaphors or themes that permeated caring in nursing education centred on reciprocal connecting and consisted of presencing, sharing, supporting, competence, and uplifting effects of caring.
Fagerberg & Kihlgren 2001, Sweden	To understand how nurses experience the meaning of their identity as nurses, when they are students and as nurses two years after graduation.	27 students	Interviews, diaries	Four dominating perspectives were found: having the patient in focus, being a team leader, preceptorship and task orientation. The nurses did not change perspectives but the perspective showed transition over time.
Granskar et al. 2001, Sweden	To generate a theoretical model of what nursing students experience in their first professional encounter with people having mental disorder.	11 students	Semi-structured interviews	The students' personal qualities and the patients' behaviour affected the students' experience. Students who were focused on their own needs felt helpless if patients rejected them, while patients wishing to establish a relationship with them confirmed their positive or negative expectations. Students who were focused on patients' needs met the patient as a unique person and felt confident despite being rejected by patient and proud when the patients wished to establish a relationship with them.
Lundberg & Boonprasabhai 2001, Thailand	To describe the meanings of good nursing care among female last-year nursing students.	20 students	Interviews and observations	Analysis of the meaning of good nursing care led to six categories: compassion, competency, comfort, communication, creation and courage.
Watson et al. 2001, UK	To investigate the perceptions of caring among students and how these develop throughout the course of a programme of pre-registration nurse education.	168 students	Questionnaire	Caring was largely perceived through a technical dimension. Other dimensions such as intimacy, support and unnecessary and inappropriate aspects of nursing also became apparent as students progressed through the programme.
Kotecki 2002, USA	To describe and generate a theory about how students communicate with patients in the clinical setting.	22 students	Interviews, observations	Being in the role of learner and having limited experience as nurses, students encountered the problem of saying right things to patients, which was preceded by the antecedent problem of fear of saying the wrong things to patients. Eight communication strategies, and five communication patterns incorporating communication strategies, four stages of the social psychological process were identified.

Appendix 1		2(13)		
Author(s) year and country	Purpose	Sample	Methodology	Main results
Lauder et al. 2002, UK	To investigate the perceptions of students regarding their therapeutic commitment, role competency, role support and empathy towards working with people who have mental health problems.	185 students	Questionnaires	Role competency, role support and empathy predicted 34.3% of the variability in levels of therapeutic commitment reported by students, with role competency being the only significant predictor.
Eifried 2003, USA	To explore the meanings of the lived experience of nursing students as they care for patients who are suffering.	13 students	Conversational interviews, written narratives	The essence of bearing witness to suffering were grappling with suffering, struggling with the ineffable, getting through, being with suffering patients, embodying the experience of suffering, and seeing possibilities in suffering.
White 2003, USA	To identify how nursing students learn clinical decision-making.	17 students	Interviews	Gaining confidence in their skills, building relationships with staff, connecting with patients, gaining comfort in self as a nurse, and understanding the clinical picture were identified as components associated with students' clinical decision-making.
Granum 2004, Norway	To describe nursing students' perceptions of nursing as a theoretical subject and as a function.	60 students	Questionnaire, interview	Students seemed to be uncertain about what is truly nursing knowledge. Students believed contact with patients is the most important nursing function.
Lemonidou et al. 2004, Greece	To explore students' lived experience of ethics, and their perceptions and understanding of encountered ethical conflicts.	75 students	Journals	Empathising with patients was identified as the core theme of the students' experience. Caring and emotion were also evident throughout the students' experiences.
Ora-Hyytiäinen 2004, Finland	To describe and explain the professional development of nursing students to a registered nurse and its phases during their education.	171 students	Written narratives	The basic process of professional growth included the professional identity of a nurse, the goal of nursing practice, the relationship between patient and nurse, the working environment of the nurse, and acting as a nurse.
Karaböz 2005, Turkey	To clarify nursing students' perception of caring.	19 students	Written incidents, interviews	Professional/helping relationship with patient and their families was considered a very important aspect of caring by students to help/support patient meet fundamental needs. Respect, compassion, concern, communication as well as having technical competency were seen as basic elements of this process.
Mikkonen 2005, Finland	To investigate students' experiences in their practice placements throughout their nursing education programme.	8 students	Learning diaries	The focus of students' experiences was identified as follows: participation, self in different roles and relationships.
Oriand-Barak & Wilhelem 2005, Israel	To examine students' perspectives towards learning to become a nurse, as revealed through the language and content of their written stories of clinical practice	24 students	Written stories	Learning to become a nurse in practice settings was characterised by procedural language, by medical rather than nursing terminology, and by a focus on actions rather than on interactions.

3(13)

Appendix 1 Author(s) year and country	Purpose	Sample	Methodology	Main results
Peyrovi et al. 2005, Iran	To understand and gain deeper insight into Iranian student nurses' lived experience of clinical placement.	5 students	Interviews	Caring-orientated relationship was a holistic view towards the patient and students considered the patient as a human being with all aspects of biopsychosocial and spiritual needs.
Stockhausen 2005, Australia	To expose the significant events nurses reflect on as they learn to become nurses.	18 students	Group debriefing, journal writing	Active engagement of students with patients, peers, and staff in clinical practice, the development of a range of clinical skills and the ability to reflect on the alliance between theory and practice in real settings, engages the student in becoming a nurse.
Mackintosh 2006, UK	To identify the effect time has on students' attitudes and views of care and becoming a nurse during pre-registration nurse training.	16 students	Semi-structured in-depth interviews	There was a change from idealistic views about the caring role of nurse towards personal disillusionment with care as well as the identification of negative aspects of care.

Instruments developed for the assessment of students' interactions with patients

Author(s) year and country	Purpose	Sample	Methodology	Main results
Cossette et al. 2005, Canada	To describe the development and initial psychometric evaluation of the Caring Nurse-Patient Interactions Scale	332 students	Questionnaire	Results of the contrasted group approach partially supported the hypotheses while all differences were in the expected direction.
Lee-Hsieh et al. 2005, Taiwan	To develop an assessment tool to measure patient perceptions of caring in their interactions with nursing students.	388 patients	Questionnaire	The Caring Behavior Measurement (CBM) is a valid and reliable assessment tool of caring behaviours in students and practising professional nurses, as well as offering a descriptive answer to "what is caring in nursing in Taiwan".
Cossette et al. 2006, Canada	To develop a shortened version of the Caring Nurse-Patient Interaction Scale (CNPI scale) and assess its validity and reliability.	377 students	Questionnaire	The CNPI-Short Scale is a useful tool for research aimed at demonstrating that caring is indeed fundamental to nursing.

Factors related to the student-patient relationship

Author(s) year and country	Purpose	Sample	Methodology	Main results
Karttunen 1999, Finland	To describe the nursing students' conceptions of knowledge, how their action in practice influences their knowledge and how students describe the relationship between theory and practice.	38 students	Essays, interviews	Action in placements altered students' knowledge base, their situation related to decision-making and their nursing skills, and students were influenced by practical models during their placements. The relationship between the theoretical knowledge and nursing practice was still taking shape.
Löfmark, et al. 1999, Sweden	To evaluate students' and their supervisors' ability to assess patients' individual needs.	48 students, 48 supervisors and 48 patients	Questionnaire, interview	There was agreement between patients, students and nurses in their perceptions of patients' individual needs, although certain under- and overestimations by students and nurses of both physical and emotional needs were found, with a predominance of overestimation of emotional needs.
Melrose & Shapiro 1999, Canada	To describe the experiences of students' own ways of constructing knowledge during their mental health clinical experience.	6 students	Questionnaire, tape-recorded interviews	The significant features of the psychiatric clinical experience were students' anxiety related more to feeling unable to help than to interactions with mentally ill patients, students' feelings of a lack of inclusion in staff nurse groups, and student emphasis on the importance of nonevaluated student-instructor discussion time.
Priest 1999, UK	To compare novice and expert perceptions of the nature of psychological care, and to identify those processes that may contribute to nurses' ability to apply psychological understanding in practice.	5 students and 3 nurses	Interviews	Novices considered a broader range of themes to be central to psychological caregiving and placed more emphasis upon the use of personal qualities aimed at reducing patient's anxiety and stress than experts. Similarly, novices identified more contributory factors than experts in explaining the process of acquiring skill in psychological caregiving.
Sadala 1999, Brazil	To examine the feelings, doubts and difficulties experienced by nursing students when caring for persons with contagious diseases.	18 students	Tape-recorded interviews	The students' ability to contact and become involved when taking care of patients overcame the difficulties they experienced.
Stewart 1999, UK	To examine the change in students' attitudes to HIV/AIDS and sexual orientation over a 3-year nurse training period	192 students	Questionnaire	Students had a greater degree of prejudice against an individual according to his diagnosis but this did not affect their willingness to interact with the person.
Edwards 2000, UK	To find out how and whether change in more user focused mental health services was having an impact on service users and their nurses.	228 service users and 244 students	Focus group interviews, questionnaires	The key concerns for users were issues of choice, individuality, information and quality of care in terms of positive interpersonal relationships with those who have responsibilities for helping them and who are sensitive to their real needs.

Author(s) year and country	Purpose	Sample	Methodology	Main results
Appendix 1 5(13)				
Hjörleifsdóttir & Carter 2000, UK	To investigate whether any particular situations or factors influenced how students communicate with terminally ill and dying cancer patients and their families.	12 students	Semi-structured interviews	Communicating with terminally ill and dying cancer patients is difficult for students. Lack of support and guidance within the clinical setting was the major concern. University lectures about death and dying were found helpful but students felt it difficult to utilize their knowledge in clinical placements.
Jaroma 2000, Finland	To examine the views of midwifery, nursing and public nursing students concerning their professional education and their future profession in nursing.	1144 students	Questionnaire	Supervised practice and learning by doing scientific research were linked to professional development and students' opinions of their future roles.
Rajji 2000, Finland	To describe clinical learning according to the student nurses' own conceptions.	15 students	Learning diaries	Students described their conceptions of the sources of knowledge in clinical learning, acquiring knowledge in clinical learning and their own learning strategies in the learning paths they followed.
Vanhanen 2000, Finland	To develop and test a conceptual framework concerning health care students' views of nursing and factors associated with it.	269 students	Written essays, interview, questionnaire	Nursing expertise and life orientation scores increased during the education. Caring orientation did not change during education.
Allcock & Standen 2001, UK	To explore students' experiences of caring for patients in pain and to identify possible influences that might explain the changes in students' inferences of pain.	15 students	Semi-structured interviews	Students experienced a range of strong emotions when caring for patients with pain. Their relatively junior status in the wards seemed to place them in difficult positions and provided them with little support.
Crigger 2001, USA	To describe antecedents or themes that affected the student's choice to become engrossed.	13 students	Audiotaped interviews	Students' sense of need in the clients or a sense of need within themselves to help the client, physical characteristics of client, similarities between students and the client, protecting positive attributes on the client, students' emotional responses, and reciprocity in the relationship facilitated engrossment and the development of a caring relationship with clients.
Hodges et al. 2001, USA	To investigate the plausibility of integrating masterworks of art with care of the chronically ill elderly, and to analyse perceptions about chronic illness among registered nurses, nursing students, and the elderly.	28 elderly adults, 16 students and 21 nurses	Focus group interviews	The elderly acknowledged hope and a steadfast refusal to give up on life, while nurses and students believed that life with chronic illness creates feelings of fear and hopelessness in the elderly. Students and nurses viewed isolation more abstractly and more negatively than the elders did.
Koskinen & Siilen-Lipponen 2001, Finland	To describe the factors affecting learning at a clinical practice from the last term degree nurse students' point of view.	10 students	Interview	The work community's well being, good preceptor and the teacher-role were categories describing the features of learning at the clinical practice.

Author(s), year and country	Purpose	Sample	Methodology	Main results
Appendix 1 6(13) Randle 2001, UK	To identify changes in the self-esteem of students in order to assess the major influencing factors during their transition to become a nurse and to explore the interpretations and constructions which students ascribed to their experiences during this transition.	95 students	Unstructured interviews	Students' self-esteem became fragmented as a consequence of the negative influences they experienced. The most influential group in shaping students' actions, attitudes and beliefs were nurses.
Spouse 2001, UK	To examine the nature of students' professional development whilst learning in a clinical setting.	8 students	Individual interviews, observations, illuminative art and critical incidents	Students were concerned with relating to patients and their relatives, developing technical knowledge, learning to bundle activities of nursing together, developing craft knowledge, relating to and functioning within a clinical team, managing feelings and emotions, and developing the essence of nursing which promotes therapeutic action.
Westergård et al. 2001, Finland	To investigate the conceptions of novice students concerning the art of nursing.	17 students	Essays	Central issues in the art of nursing were integration of knowledge and skills into practical skills, relationship between the nurse and the patient, professional nursing, professional growth and development, and lay skills in nursing. The art of nursing developed through clinical experience.
Wolf 2001, USA	To describe the experiences of nursing students as they communicate for the first time with delusional, hospitalised patients.	35 students	Written accounts	Students feared patients' unpredictable behaviour and wished to avoid interaction with them; they also made the transition from fear of patients to empathy and concern for them.
Ashmore & Banks 2002, UK	To replicate a study of disclosure in adult nursing students (ANS), and to compare differences between ANS and mental health nursing students (MHNS) in disclosure.	50 students ANS (25) MHNS (25)	Questionnaire	ANS were more self-disclosing than students sampled in Burnard and Morrison's (1992) study; both sets of students disclosed significantly less items to the patient as a target-person than to other categories; and MHNS disclosed significantly more items than the ANS to the patient category.
Kozabassaki et al. 2002, Greece	To examine students' attitudes towards the care of elderly persons.	5 students	Semi-structured interviews	Students' experiences with grandparents affected their attitudes towards the care of their clients. Positive feelings were mainly described as love and affection. Negative feelings were attributed to students failing to win elderly person's trust due to student's youth or inexperience, to loneliness experienced by elderly patients, and to improper care delivered to them.
Patterson & Morin 2002, USA	To describe male student nurses' experience in the maternal-child setting.	8 students	Interviews	Male students expressed mixed feelings and concerns about meeting clinical objectives and personal goals because of their gender and possible misinterpretations of their care. Faculty played a significant role in clients' responses to the students and in providing a supportive learning environment.

Author(s) year and country	Purpose	Sample	Methodology	Main results
7(13) Pesut 2002, Canada	To explore how students perceive their spirituality and spiritual health, and their perceptions of spiritual nursing care	53 students	Questionnaire	Students had a strong awareness of personal spirituality and a high level of spiritual health. Relationship with patients was the key to providing spiritual care. Furthermore, qualities of the nurse facilitated spiritual nursing care. Fourth-year students demonstrated a more patient-centred approach to spiritual care.
Saarikoski 2002, Finland	To describe how nursing students experience their clinical environment and the supervision given by staff nurses. To develop and test an evaluation scale of Clinical Learning Environment and Supervision (CLES).	759 students and 9 teachers	Questionnaires	The supervisory relationship with personal mentor is the most meaningful single element of supervision evaluated by students. The ward atmosphere and the management style of ward manager are the most important environmental factors of the clinical ward. The evaluation scale is useful in research and quality assessments of the clinical learning environment and supervision.
Sarajärvi 2002, Finland.	To describe nursing students' conceptions of nursing during their studies.	35 students	Essays, interviews	At the early stage of education the students' conception of nursing was holistic and started from the patients' needs. With the progress of their education ward rules and norms became the most important guidelines in practice.
Sheu, Lin & Hwang 2002, Taiwan	To examine the degree of stress and the type of stressful events, the physio-psycho-social status of nursing students during practice, the coping behaviours of these students, and the effect of various coping behaviours on their physio-psycho-social health.	561 nursing students	Questionnaires	Stress for students came mainly from the lack of professional knowledge and skills as well as caring for patients. Social behavioural symptoms were the most common response to ineffective coping followed by emotional symptoms and physical symptoms. The most common coping behaviour of students was to stay optimistic followed by transference and problem-solving.
Papp et al. 2003, Finland	To describe student nurses' perceptions of clinical learning experiences in the context of the clinical learning environment.	16 students	Observation, interviews	The appreciation and support received by students, the quality of mentoring and patient care, and students' self-directedness summed up the experiences of students. Students valued clinical practice and the possibilities it offered in the process of growing to become a nurse and a professional.
Tuohy 2003, Ireland	To ascertain how student nurses communicate with older people	8 students	Participant observation, semi-structured interviews	Routinised and task-orientated approach to patient care, students' assumptions about older people, and role modelling by nurses affected student-older person communication. Students understood communication to be a means of providing emotional support, developing a rapport and building a relationship with the patient.
Ashmore & Banks 2004, UK	To analyse student nurses' actual skills by using Heron' s framework, as deployed in clinical role plays and to compare them to earlier findings.	46 students	Audioplayed roleplays	Catalytic interventions were the most frequently used interventions followed by prescriptive, supportive, informative, confronting and cathartic interventions.

Author(s) year and country	Purpose	Sample	Methodology	Main results
Appendix 1 8(13)				
Celik & Bayraktar 2004, Turkey	To identify the abuse experiences of nursing students in Turkey	225 students	Questionnaire	Students stated they were abused verbally, academically, sexually, and physically by classmates, faculty, nurses, physicians, patients, and patients' family members. Students felt anger, guilt, shame, helplessness and depressed due to this abuse. Doing nothing was the most common coping method among students.
Kidd & Tusaie 2004, USA	To describe the lived experience of nursing students in mental health clinic.	Students in two urban hospitals (N = not described)	Written poems	Fears about personal safety and personal competence, empathy for the lived experiences of clients, normalisation of mental illness and clients with mental illness, the student as wounded healer and metamorphosis were identified.
McLafferty & Morrison 2004, UK	To examine whether negative attitudes and beliefs towards older adults persist.	17 students, 13 nurses and 6 nurse teachers	Focus group interviews	Students had varying experiences in older adult settings, some of which had the effect of turning them away from the speciality. However, they valued the practical and communication skills they learn in older adult settings.
Salmela 2004, Finland	To find out how nurse students, nurse teachers and mentors evaluate the physical and psycho-emotional caring skills of students and the amount of teaching.	151 students, 164 nurse teachers and 268 mentors	Questionnaire	All parties estimated the skills of the students as moderate, the mentors being the most critical in their ratings.
Ajanko & Kiipi 2005, Finland	To explore the ethical reasoning of graduating midwifery and public health nursing students.	29 students	Questionnaire	The students' ethical reasoning was found to be at an average level, i.e. at a combined traditional and reflective level.
Hayman-White & Happell 2005, Australia	To explore the relationship between the attitudes, preparedness, and career preferences of nursing students before their mental health clinical placement.	748 students	Questionnaire	The findings emphasised the relationship between students' negative attitudes towards consumers of mental health services, their anxiety surrounding mental illness, and their desire to pursue a career in the area.
Jrasat et al. 2005, Jordan	To investigate nursing students' level of awareness and attitudes towards the nursing profession, their expected future practices and their anticipated reactions when faced with a challenging hypothetical situation.	319 students	Questionnaire	A student's personal desire to become a nurse accounted for only one-third of the total. Students were aware of the required nature of professional nurse-patient relationship with demonstrable empathy for the patient. Students would deal with HIV-infected patients similarly to other patients. Analysis of students' expected reactions to abuse by a patient showed that approximately half would be tolerant and accept to work with the patient.
McLafferty 2005, UK	To compare the attitudes of student nurses with those of nurse teachers towards working with hospitalised older adults.	119 students and 55 nurse teachers	Questionnaire	Nurse teachers were most positive for a number of items on the questionnaire. However, they were least positive about their role in promoting an interest in older people and keeping up to date about advances in the field of older people. Students described working with older people as interesting and saw the older adults setting as a learning experience.

Appendix 1		9(13)		
Author(s) year and country	Purpose	Sample	Methodology	Main results
Saveman et al. 2005, Sweden	To explore nursing students' beliefs about families in nursing care.	9 students	Audiotaped interviews	Students believed that a trusting relationship and atmosphere created by nurses foster families' and patients' well-being.
Van Rooyen et al. 2005, South Africa	To describe how nursing students experience the accompaniment of the dying patient and care of the patient after death.	6 students	Unstructured interviews, journals, field notes	In accompaniment of the dying patient, students experience turmoil in different relationships due to feelings and emotions invoked by nursing the dying patient, and due to conflict resulting from expectations related to a role model not being met.
Vuorinen et al. 2005, Finland	To describe the content of the guided clinical practice, the preconditions of the guided clinical practice and the influences of these actions on nursing students.	27 scientific articles	Systematic review	The content of the practice was mainly concerned with the actions in nursing and supporting the students. Preceptorship had most influence on the professional actions among students.
Baxter & Rideout 2006, Canada	To explore the decision-making activities of nursing students.	12 students	Journals, unstructured interviews	The encounters that demonstrated students' decision-making were encounters with the patient, nursing staff, and clinical tutor. The student-patient encounter was identified as the most complex of all the encounters found within the clinical setting in which students were faced with many demands, emotions and expectations.
Cassidy 2006, Ireland	To describe the meanings of student nurses attached to caring for infectious patients in source isolation within the general hospital setting.	8 students	Unstructured interview, diary, field notes	Concerns regarding personal risks of acquiring infection created obstacles within student-patient relationships. Keeping a distance provided a sense of security.
Cunningham et al. 2006, UK	To explore nursing students' perceptions of their experience and the preparation they received whilst caring for cancer patients during their clinical placements.	134 students	Questionnaire, semi-structured interviews	Students had experiences of caring for cancer patients mainly on medical and surgical placements, with the majority reporting positive experiences and being well supported by the staff and mentors. However, students felt a lack of confidence in caring for and communicating with cancer patients.
Hweidi & Al-Obeisat 2006, Jordan	To identify and describe the attitudes of nursing students towards older people and examine the relationship between their personal characteristics and their attitudes.	243 students	Questionnaire	Students displayed marginally positive attitudes towards older people. Student age and socio-economic status correlated significantly with their attitudes. Senior and male nursing students had more positive attitudes towards the elderly than their counterparts. Students who preferred to work with older people after graduation had more positive attitudes towards older people than students who did not.
Lee et al. 2006, Hong Kong	To examine the knowledge and working preferences towards the elderly among nursing students.	219 students	Questionnaire	Nursing students had neutral to positive working preferences towards the elderly. Increased level of study improved the knowledge of local community resources for the elderly.

10(13)

Author(s) year and country	Purpose	Sample	Methodology	Main results
Salminen et al. 2007, Finland	To describe research on health care education in Finland in 1984–2004.	118 nursing science publications	Literature review	Most of the studies concern nursing students and their learning, e.g. students' perceptions of caring and of their learning environment and supervision.

Effects of teaching methods on students' relationships with patients

Author(s) year and country	Purpose	Sample	Methodology	Main results
Clinton 1999, Australia	To describe a collaborative education project conducted with people with a serious mental illness and nursing students.	90 students	Questionnaire	Collaborative education is an effective means for breaking down stereotypes about people with a psychiatric disability.
Cutcliffe & Cassidy 1999, UK	To examine the levels of empathy in students prior to and following their short skill-based counselling course.	38 students	Questionnaire	The empathy scores increased for this group of students following the short skills-based counselling course.
Festa et al. 2000, USA	To describe students' experiences of videotaped interaction with a standardised patient.	9 students	Focus group	Videotaping was a useful instructional method that enhanced student learning and increased their self-awareness.
Paukkunen et al. 2001, Finland	To evaluate the effects of education on social and health care students' and professionals' cooperative skills.	83 students	Questionnaire	The changes were more often in line with the aims of educational experiment than against it.
Puentes & Cayer 2001, USA	To describe the development, implementation, and testing of a modified version of an educational approach that focused on the affective domain of learning known as the campus wellness vacation.	33 students	Questionnaire	A campus wellness vacation can have a significant positive impact on nursing students' knowledge of and attitudes towards older adults.
Rogan & Wylie 2003, Australia	To explore students' perceptions of the effect of an educational programme on their knowledge, skills and attitudes to the elderly.	112 students	Open-ended questionnaire, focus groups	The programme with its supportive structure was able to engage the students in positive learning experiences with the elderly and to develop a person-centred approach to the elderly.
Auvinen et al. 2004, Finland.	To describe moral judgment among first- and last-year nursing students in Finland and to examine the effects of ethics teaching on the development of moral judgment.	106 students	Questionnaire	Students who had had to deal with ethical dilemmas in their practical training had a higher moral judgment than students who did not. Last-year students had a higher moral judgment than first-year students.
Lin et al. 2004, Taiwan	To explore the influence of an assertiveness training programme on nursing and medical students' assertiveness, self-esteem, and interpersonal communication satisfaction.	69 students	Questionnaire	Assertiveness and self-esteem were influenced by assertive training. However, interpersonal communication satisfaction was not influenced by assertiveness training.

Appendix 1 Author(s) year and country	Purpose	Sample	Methodology	Main results
11(13) Turner et al. 2004, UK	To evaluate client attachment (CA) with pre-registration mental health nurses.	12 students, 2 service users and 22 clinicians	Semi-structured interviews	CA helped students to identify their own goals, to focus on the individual needs of the clients, and to achieve the quality and trust within their relationship with clients. Clients perceived the relationship with the student as helpful and they were treated as a person by the students.
Kwekkeboom et al. 2005, USA	To investigate the knowledge and attitudes towards palliative care among students participating in the Palliative Care Companion programme and among peers as controls	34 students	Questionnaires	Participating in the Palliative Care Companion programme improved students' knowledge and attitudes towards palliative care and reduced concerns about caring for dying patients.
Lee-Hsieh et al. 2005, Taiwan	To evaluate, from the patient's point of view, the effectiveness of the Caring Code as a tool for teaching caring to nursing students during clinical practice.	480 patients	Questionnaire, interviews	The Caring Code had a statistically significant positive effect on student caring behaviour.
Needham et al. 2005, Switzerland	To investigate the influence of a training course on nursing students' perceptions of, attitudes towards, and perceived confidence in managing patient aggression.	177 students	Questionnaires	The training course improved nursing students' perceived confidence in managing patient aggression without changing their fundamental views of it.
Becker et al. 2006, USA	To compare the use of standardised patients (SPs) with the usual method of instruction in a class of undergraduate nursing students.	147 students	Questionnaires	Students who participated in the SP method overwhelmingly described the experience as positive, creative, and meaningful. No significant differences were found between the two groups on measures of interpersonal skills, therapeutic communication skills, and knowledge of depression.
Ferrari 2006, UK	To explore how nursing students perceive the role of academic education in enabling them to understand factors that can influence the relationship between nurses and patients.	4 students	Unstructured interviews	Students emphasised those teaching methods that promote reflection on practice to have an important role in fostering understanding of the nurse-patient relationship.
Honey et al. 2006, New Zealand	To evaluate the usefulness of a formal written reflective assignment in the context of disability education.	12 students	Reflection assignments	Students' reflection focused less on their experience of working with people with disabilities and more on their overall learning experience and coping with clinical practice. Students acknowledged reflection as beneficial to their learning and linked to their clinical practice.

Appendix 1		12(13)		
Author(s) year and country	Purpose	Sample	Methodology	Main results
Kluge & Glick 2006, USA	To experiment with a method to increase opportunities for first-year nursing and health sciences students to practise therapeutic communication skills in a controlled setting.	36 students	Summative assessments, questionnaire, focus groups	The Video Inter-Active computer-based, challenge-response-record-evaluate method is an effective and efficient way for students to develop and practise therapeutic communication skills.
McConville & Lane 2006, UK	To develop on-line video clip material that showed examples of nurses dealing with potentially difficult and delicate patient groups, and to conduct a preliminary evaluation of the effectiveness of video clip materials on enhancing students' self-efficacy.	145 students	Questionnaires	Students' self-efficacy increased noticeably over the course of the module. Differences between increases in self-efficacy attributed to watching videos or attending lectures were marginal.
Rush & Barker 2006, UK	To evaluate students' experiences of service user involvement in the enquire-based learning (EBL) process.	26 students	Written evaluations	The EBL with service users is successful based on student evaluations, inspiring the students and contributing to the development of their understanding of mental health issues.

Patients' experiences and perceptions of factors related to the relationship with student

Author(s) year and country	Purpose	Sample	Methodology	Main results
Morin et al. 1999, USA	To describe the factors that influence a maternity patients' decision to accept care by a male student nurse.	32 women	Interviews	Perception of self and personal feelings as personal factors affected maternity patients' decision to accept nursing care from a male student. Contextual factors that affected their decision were student's characteristics, establishment of relationship, nursing care activities, and partner viewpoint.
Mossop & Wilkinson 2006, New Zealand	To explore the perspectives of older patients in long-term hospitals who had first-year nursing students involved in their care.	12 patients	Semi-structured interviews	Patients found first-year student-nurse-rendered care to be a positive experience. They appreciated the help, assistance, attention, and the increased social opportunities provided by the students. Furthermore, they demonstrated an interest in participating in student learning.

Consequences related to the student-patient relationship

Author(s) year and country	Purpose	Sample	Methodology	Main results
White et al. 2000, USA	To evaluate whether change occurred after students spent 6 days caring for someone with a disability.	37 students	Questionnaire, journals	Students gained an in-depth knowledge of caring for people with disabilities and improved their attitudes towards disabled clients after working with them.
Kaymakçı et al. 2006, Turkey	To describe the preparation of materials for preoperative patient education and to evaluate patient education carried out by nursing students.	79 students	Questionnaire	Patients were pleased with the education prepared according to their individual needs and the students were pleased with giving education with material they had prepared employing their own creativity.
Shellman 2006, USA	To examine nursing students' perceptions of their reminiscence experiences with older adults.	41 students	Open-ended questionnaire	The reminiscence interaction helped students make connection with the older adult, learn about older adults and see the world through their eyes as well as learn about themselves. Students noted that reminiscing distracted older adults from their illness or problems they were facing. It also helped students learn to listen and increased their confidence in their nursing practice.

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TUTKIMUS SAIRAAHOITAJAOPISKELIJAN JA POTILAAN VÄLISESTÄ
SUHTEESTA JA SEN MERKITYKSESTÄ HOITAMISEN OPPIMISESSA

Tutkimuspyyntö opiskelijalle

Arvoisa sairaanhoitajaopiskelija

Teen Turun yliopiston hoitotieteen laitoksella väitöskirjatutkimusta, joka käsittelee sairaanhoitajaopiskelijan ja potilaan välistä suhdetta ja sen merkitystä hoitamisen oppimisessa. Tutkimustyöni ohjaajana toimii professori Helena Leino-Kilpi Turun yliopiston Hoitotieteen laitokselta, puh. (02) 333 8404. Tutkimusta varten haastattelen XXX sairaanhoitopiirin A sairaalan ja B sairaalan sisätautiosastoilla hoidossa olevia potilaita ja sairaanhoitajaopiskelijoita. Haastattelujen tallentamiseksi ne nauhoitetaan.

Tutkimukseen liittyvät haastattelut toteutetaan helmikuun ja toukokuun 2000 välisenä aikana. Haastattelussa käsitellään kokemuksiasi ja käsityksiäsi opiskelijan ja potilaan välisestä yhteistyösuhteesta ja sen toteutumisesta opiskelujaksosi aikana. Toivon, että olisit halukas osallistumaan tutkimukseen ja siten antamaan arvokkaan panoksesi hoitotyön ja hoitotyön opetuksen kehittämiseksi.

Tutkimukseen osallistuminen on vapaaehtoista. Kieltäytymisesi ei vaikuta mitenkään opiskeluusi. Tutkimusta varten antamasi tiedot käsitellään luottamuksellisesti ja siten, ettei niistä voida tunnistaa henkilöllisyyttäsi. Toivon Sinun suhtautuvan myönteisesti tähän tutkimukseen.

Arja Suikkala
Terveydenhuollon maisteri, terveystieteiden jatko-opiskelija

Yhteystiedot tutkimusta koskevissa asioissa: xxx (yhteystiedot poistettu)

TURUN YLIOPISTO
Hoitotieteen laitos
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TUTKIMUS SAIRAAHOITAJAOPIKELIJAN JA POTILAAN VÄLISESTÄ
SUHTEESTA JA SEN MERKITYKSESTÄ HOITAMISEN OPPIMISESSA

Tutkimuspyyntö potilaalle

Arvoisa potilas

Teen Turun yliopiston hoitotieteen laitoksella väitöskirjatutkimusta, joka käsittelee sairaanhoitajaopiskelijan ja potilaan välistä suhdetta ja sen merkitystä hoitamisen oppimisessa. Tutkimustyöni ohjaajana toimii professori Helena Leino-Kilpi Turun yliopiston Hoitotieteen laitokselta, puh. (02) 333 8404. Tutkimusta varten haastattelen XXX sairaanhoitopiirin A sairaalan ja B sairaalan sisätautiosastoilla hoidossa olevia potilaita ja sairaanhoitajaopiskelijoita. Haastattelujen tallentamiseksi ne nauhoitetaan.

Tutkimukseen liittyvät haastattelut toteutetaan helmikuun ja toukokuun 2000 välisenä aikana. Haastattelussa käsitellään kokemuksianne ja käsityksiänne opiskelijan ja potilaan välisestä yhteistyösuhteesta ja sen toteutumisesta hoitajaksonne aikana. Toivon, että olisitte halukas osallistumaan tutkimukseen ja siten antamaan arvokkaan panoksenne hoitotyön ja hoitotyön opetuksen kehittämiseksi.

Tutkimukseen osallistuminen on vapaaehtoista. Kieltäytymisenne ei vaikuta mitenkään Teidän hoitoon. Tutkimusta varten antamanne tiedot käsitellään luottamuksellisesti ja siten, ettei niistä voida tunnistaa henkilöllisyyttänne. Toivon Teidän suhtautuvan myönteisesti tähän tutkimukseen.

Arja Suikkala
Terveydenhuollon maisteri, terveystieteiden jatko-opiskelija

Yhteystiedot tutkimusta koskevissa asioissa: xxx (yhteystiedot poistettu)

TURUN YLIOPISTO
Hoitotieteen laitos
20014 TURUN YLIOPISTO

TUTKIMUS SAIRAANHOITAJAOPISKELIJAN JA POTILAAN VÄLISESTÄ
SUHTEESTA JA SEN MERKITYKSESTÄ HOITAMISEN OPPIMISESSA

SUOSTUMUS HAASTATTELUUN

Minulle on annettu tietoa haastattelun avulla tehtävästä tutkimuksesta *“Sairaanhoitajaopiskelijan ja potilaan suhde ja sen merkitys hoitamisen oppimisessa”* sekä suullisesti että kirjallisesti. Suostun vapaaehtoisesti siihen, että minuun voi ottaa yhteyttä haastattelua varten. Minulle on selvitetty, että antamiani tietoja käsitellään luottamuksellisesti ja siten, ettei niistä voida tunnistaa henkilöllisyyttäni. Voin keskeyttää osallistumiseni haastatteluun niin halutessani.

_____ / _____ 2000

Tutkimukseen osallistujan allekirjoitus

Suostumuksen vastaanottajan allekirjoitus

Yhteystiedot tutkimusta koskevissa asioissa: xxx (yhteystiedot poistettu)

Appendix 4 Written instructions for ward managers and/or other contact persons 1(2)

TURUN YLIOPISTO
Hoitotieteen laitos
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KIRJALLINEN OHJE OSASTONHOITAJILLE
JA/TAI MUILLE YHDYSHENKILÖILLE
1.9.2005

KYSELYTUTKIMUS SAIRAANHOITAJAOPISKELIJAN JA POTILAAN VÄLISESTÄ SUHTEESTA

Suoritettavat opiskelija- ja potilaskyselyt ovat osa Turun yliopiston hoitotieteen laitoksella tehtävää väitöskirjaa ”Sairaanhoitajaopiskelijan ja potilaan suhde ja sen merkitys hoitamisen oppimisessa”. Tutkimuksen tarkoituksena on tuottaa tietoa, joka tukee hyvään opiskelijan ja potilaan yhteistyösuhteeseen liittyvien käytäntöjen kehittämistä. Tutkimuksessa on tähän mennessä 1) selvitetty opiskelijan ja potilaan suhdetta kirjallisuuskatsauksen avulla ja 2) kuvattu teemahaastatteluihin perustuvan aineiston avulla opiskelijan ja potilaan kokemuksia suhteesta.

Nyt suoritettavien kyselyiden avulla selvitetään opiskelijan ja potilaan suhdetta, opiskelijan ja potilaan toimintaa suhteessa, suhteeseen vaikuttavia tekijöitä ja suhteen merkitystä opiskelijalle ja potilaalle. Kyselyt toteutetaan sisätautien vuodeosastoilla opiskelijoiden ohjatun harjoittelun aikana lukuvuonna 2005-2006. **Teidän osastoltanne tutkimukseen otetaan mukaan ____ opiskelijaa ja ____ potilasta.**

OPISKELIJAKYSELY

Kyselylomakkeet jaetaan jokaiselle seuraavat kriteerit täyttävälle sisätautien vuodeosastolla ohjatussa harjoittelussa olevalle sairaanhoitajan pätevyyttä tavoittelevalle opiskelijalle:

Opiskelija

1. on sairaanhoitaja-, terveydenhoitaja-, kättilö- tai ensihoitajaopiskelija
2. osallistuu tutkimukseen vapaaehtoisesti
3. on suomenkielinen.

Kyselylomake jaetaan kriteerit täyttävälle opiskelijalle ohjatun harjoittelun aikana. Opiskelijaa pyydetään täyttämään lomake ja palauttamaan se suljetussa kirjekuoressa hoitohenkilökunnalle viimeisellä viikolla ennen harjoittelun päättymistä.

POTILASKYSELY

Potilaskysely toteutetaan samanaikaisesti opiskelijakyselyn kanssa. Kyselylomakkeet jaetaan seuraavat kriteerit täyttävälle potilaille siten, että jokaista opiskelijaa kohti kyselyn täyttää yksi sellainen potilas, jota opiskelija on hoitanut:

Potilas

1. on iältään vähintään 18-vuotias
2. on ollut sairaalassa vähintään 3 vuorokautta (2 yötä sairaalassa)
3. on fyysisesti ja henkisesti niin hyväkuntoinen, että hän kykenee itse täyttämään lomakkeen
4. osallistuu tutkimukseen vapaaehtoisesti
5. on suomenkielinen.

Kyselylomake jaetaan kriteerit täyttävälle potilaalle kotiinlähtöä edeltävänä päivänä. Potilasta pyydetään täyttämään lomake ennen kotiinlähtöä ja jättämään se suljetussa kirjekuoressa hoitohenkilökunnalle.

TUTKIMUKSEN SEURANTALOMAKKEET

Kyselylomakkeiden jakamisen yhteydessä tutkimukseen osallistuvista opiskelijoista ja potilaista kirjataan taustatietoja erilliseen tutkimuksen seurantalomakkeeseen. Näiden taustatietojen tarkoituksena on saada tietoa siitä, millaiset henkilöt ovat jättäneet vastaamatta tai mahdollisesti kieltäytyneet vastaamasta kyselyyn. Tutkimuksen päätyttyä opiskelijoiden ja potilaiden palauttamat kyselylomakkeet ja täytetyt seurantalomakkeet lähetetään tutkijalle erillisessä postituskuoressa.

Tutkimukselle on saatu sen edellyttämät tutkimusluvut. Tutkimuksen ohjaajana toimii Turun yliopiston hoitotieteen laitoksen johtaja, professori, THT Helena Leino-Kilpi, puh (02) 333 8404.

Yhteistyöterveisin,

Arja Suikkala
Terveydenhuollon maisteri, terveystieteiden jatko-opiskelija

xxx (yhteystiedot poistettu)

Appendix 5 Questionnaire follow-up forms

1(2)

2(2)

TURUN YLIOPISTO
Hoitotieteen laitos
20014 TURUN YLIOPISTO

TURUN YLIOPISTO
Hoitotieteen laitos
20014 TURUN YLIOPISTO

POTILASKYSELYN SEURANTALOMAKE
1.9.2005

KYSELYTUTKIMUS SAIRAANHOITAJAOPIKSELIJAN JA POTILAAAN
VÄLISESTÄ SUHTEESTA

Kirjaa seuraavat tiedot jokaisesta tutkimukseen valitusta opiskelijasta ympyröimällä vaihtoehtoon numero tai kirjoittamalla vastaus sille varattuun tilaan. Tutkimuksen päätyttyä **palauta** seurantalomake kyselylomakkeiden mukana tutkijalle.

Nro	Ikä vuosina	Sukupuoli	Koulutusohjelma, jossa opiskelee	Haluus vastaamaan kyselyyn
	— vuotta	1 Mies 2 Nainen	1 Hoitotyö – sairaanhoitaja 2 Hoitotyö - terveydenhoitaja 3 Hoitotyö – katitö 4 Ensihoito	1 Kyllä 2 Ei, miksi?
	— vuotta	1 Mies 2 Nainen	1 Hoitotyö – sairaanhoitaja 2 Hoitotyö - terveydenhoitaja 3 Hoitotyö – katitö 4 Ensihoito	1 Kyllä 2 Ei, miksi?
	— vuotta	1 Mies 2 Nainen	1 Hoitotyö – sairaanhoitaja 2 Hoitotyö - terveydenhoitaja 3 Hoitotyö – katitö 4 Ensihoito	1 Kyllä 2 Ei, miksi?

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KYSELYTUTKIMUS SAIRAANHOITAJAOPIKSELIJAN JA POTILAAAN
VÄLISESTÄ SUHTEESTA

Kirjaa seuraavat tiedot jokaisesta tutkimukseen valitusta potilaasta ympyröimällä vaihtoehtoon numero tai kirjoittamalla vastaus sille varattuun tilaan. Tutkimuksen päätyttyä **palauta** seurantalomake kyselylomakkeiden mukana tutkijalle.

Nro	Ikä vuosina	Sukupuoli	Sairaalahoitoiden syy	Haluus vastaamaan kyselyyn
	— vuotta	1 Mies 2 Nainen	1 Sairausten hoidon takia kutsuttuna 2 Tutkimuksissa kutsuttuna 3 Äkillisesti päivystyspotilaana	1 Kyllä 2 Ei, miksi?
	— vuotta	1 Mies 2 Nainen	1 Sairausten hoidon takia kutsuttuna 2 Tutkimuksissa kutsuttuna 3 Äkillisesti päivystyspotilaana	1 Kyllä 2 Ei, miksi?
	— vuotta	1 Mies 2 Nainen	1 Sairausten hoidon takia kutsuttuna 2 Tutkimuksissa kutsuttuna 3 Äkillisesti päivystyspotilaana	1 Kyllä 2 Ei, miksi?

Appendix 6 Themes of the interviews

1(2)

Opiskelijoiden haastatteluteemat

YLÄTEEMA	ALATEEMA	KYSYMYSESIMERKKEJÄ
Suhteen keskeiset piirteet	Suhteen muodostuminen Suhteen luonne Suhteen muuttuminen yhteistyön myötä	<ol style="list-style-type: none"> 1) Kuinka monen potilaan hoitoon olet osallistunut? 2) Miten / missä tilanteissa ensikontakti potilaan kanssa on syntynyt? 3) Kuinka pitkään yhteistyösuhde saman potilaan kanssa on kestänyt? 4) Kuvaille, millainen yhteistyösuhde sinulla on / on ollut potilaaseen. 5) Millä tavalla suhteesi potilaaseen on muuttunut yhteistyön myötä?
Suhteeseen vaikuttavat tekijät	Ennakkokäsitykset Suhdetta edistävät ja haittaavat tekijät	<ol style="list-style-type: none"> 1) Millaisia ennakkokäsityksiä sinulla on ollut potilaista ja heidän osallistumisestaan opiskelijoiden oppimisprosessiin? Mitä toivot / odotat potilaalta? 2) Mitkä asiat mielestäsi ovat vaikuttaneet potilaan ja sinun väliseen yhteistyösuhteeseen? 3) Esimerkiksi potilaan / opiskelijan / hoitoilanteen tai vuorovaikutuksen näkökulmasta? Edistävät / estävät tekijät? 4) Millaisia tunteuksia suhde potilaan kanssa on sinussa herättänyt? Miten nämä tunteukset ovat vaikuttaneet suhteeseen?
Toiminta ja roolit suhteessa	Opiskelijan ja potilaan toiminta suhteessa Opiskelijan ja potilaan roolit suhteessa	<ol style="list-style-type: none"> 1) Miten yhteistyösuhde potilaan kanssa on toteutunut? Millaista vuorovaikutus / yhteistyö / toiminta potilaan kanssa on ollut? Konkreettinen toiminta ja sen sisältö? 2) Millaista on olla "opiskelija-omahoitajan"? Mitä se on edellyttänyt sinulta? 4) Mikä on mielestäsi potilaan rooli? Mitä suhde on edellyttänyt potilaalta?
Suhteen eri merkitykset	Merkitys opiskelijalle ja potilaalle Merkitys oppimiseen	<ol style="list-style-type: none"> 1) Mitä suhde potilaan kanssa on sinulle henkilökohtaisesti merkinnyt? Entä potilaalle? 2) Mikä merkitystä opiskelija-potilassuhteella on oppimiseen? 3) Mitä juuri tietyn potilaan, esimerkiksi oman potilaan, hoitoon osallistuminen on sinulle opettanut?

Appendix 6

Potilaiden haastatteluteemat

2(2)

YLÄTEEMA ALATEEMA**KYSYMYSESIMERKKEJÄ**

Suhteen keskeiset piirteet	Suhteen muodostuminen	1) <i>Kuinka monta opiskelijaa on osallistunut hoitoonne nykyisen hoitojaksonne aikana?</i> 2) <i>Miten / missä tilanteessa ensikontakti opiskelijan kanssa on syntynyt?</i> 3) <i>Kuinka pitkään yhteistyösuhde saman opiskelijan kanssa on kestänyt?</i> 4) <i>Kuvalikaa, millainen yhteistyösuhde teillä on / on ollut opiskelijan kanssa.</i> 5) <i>Millä tavalla suhteenne opiskelijaan on muuttanut yhteistyön myötä?</i>
Suhteeseen vaikuttavat tekijä	Suhteen luonne Suhteen muuttuminen yhteistyön myötä Ennakkokäsitykset	1) <i>Millaisia ennakkokäsityksiä teillä on ollut opiskelijoista ja heidän osallistumisestaan potilashoittoon?</i> <i>Mitä toivotte / odotatte opiskelijoilta?</i> 2) <i>Mitkä asiat mielestänne ovat vaikuttaneet teidän ja opiskelijan väliseen yhteistyösuhteeseen?</i> 3) <i>Esimerkiksi potilaan / opiskelijan / hoitotilanteen tai vuorovaikutuksen näkökulmasta?</i> <i>Edistävät / estävät tekijät?</i> 4) <i>Millaisia tunteuksia suhde opiskelijan kanssa on teissä herättänyt?</i> <i>Miten nämä tunteukset ovat vaikuttaneet suhteeseen?</i>
Toiminta ja roolit suhteessa	Opiskelijan ja potilaan toiminta suhteessa Opiskelijan ja potilaan roolit suhteessa	1) <i>Miten yhteistyösuhde opiskelijan kanssa on toteutunut? Millaista vuorovaikutus / yhteistyö / toiminta opiskelijan kanssa on ollut? Konkreettinen toiminta ja sen sisältö?</i> 2) <i>Millaista on olla "opetuspotilaana"?</i> <i>Mitä se on edellyttänyt teiltä potilaana?</i> 3) <i>Mikä on mielestänne opiskelijan rooli? Mitä suhde on edellyttänyt opiskelijalta?</i>
Suhteen eri merkitykset	Merkitys potilaalle ja opiskelijalle Merkitys oppimiseen	1) <i>Mitä suhde opiskelijan kanssa on teille henkilökohtaisesti merkinnyt?</i> 2) <i>Mitä merkitystä arvioitte opiskelija-potilassuhteella olevan opiskelijalle / opiskelijan oppimiselle?</i> 3) <i>Mitä juuri Te potilaana ja teidän hoitoonne osallistuminen on opettanut opiskelijalle?</i>

TURUN YLIOPISTO
Hoitotieteen laitos
20014 TURUN YLIOPISTO

OPISKELIJAKYSELY
1.9.2005

Arvoisa opiskelija!

Pyydän kohteliaimmin Sinua osallistumaan väitöskirjatutkimukseeni. Tutkimuksessa selvitetään näkemystäsi toteutuneesta opiskelija-potilassuhteesta siinä toimintaympäristössä, jossa olet tällä hetkellä ohjatussa harjoittelussa. Osallistuminen merkitsee vastaamisesta yhteen kyselyyn ennen ohjatun harjoittelun päättymistä nykyisessä toimintayksikössä.

Tutkimus on aihepiiriltään uusi ja vähän tunnettu, joten vastauksesi on tärkeä. Tutkimuksesta saatavaa tietoa voidaan hyödyntää opiskelijoiden ohjatussa harjoittelussa huomioimalla sekä opiskelijoita että potilaita koskevat näkökohdat. Tutkimuksen avulla voidaan edistää opiskelijan ja potilaan yhteistyösuhteen oppimiseen liittyvien käytäntöjen kehittymistä sellaisiksi, että niillä on opiskelijoiden persoonallisen ja ammatillisen kasvun lisäksi myönteisiä vaikutuksia myös potilaiden hoidon laatuun.

Kysely on luottamuksellinen eikä henkilöllisyytesi tule ilmi missään tutkimuksen vaiheessa. Tutkimukseen osallistuu sairaanhoitajan pätevyyttä tavoittelevia hoitotyön, terveydenhoitotyön, kättilötyön tai ensihoidon opiskelijoita ja potilaita eri puolilta Suomea. Tutkimuksen tuloksia käsitellään kokonaisuutena, jolloin yksittäisten opiskelijoiden vastauksia ei ole mahdollista tunnistaa. Vastaukset menevät suljetussa kirjekuoressa ainoastaan tutkijan käyttöön. Vastaaminen on luonnollisesti Sinulle vapaaehtoista, mutta toivon Sinun haluavan osaltasi vaikuttaa hoitotyön opetuksen kehittämiseen vastaamalla kyselyyn. Tutkimukseen vastaaminen tai vastaamatta jättäminen ei mitenkään vaikuta opiskeluusi. Lisäksi on tärkeää, että vastaat kaikkiin kysymyksiin. Vastattuasi kyselyyn palauta lomake suljettuna oheiseen kirjekuoreen hoitajalta saamasi ohjeen mukaan.

Tutkimus liittyy terveystieteiden tohtorin opintoihini Turun yliopiston lääketieteellisessä tiedekunnassa, hoitotieteen laitoksella. Tutkimukselle on saatu sen edellyttämät tutkimusluvut. Tutkimuksen tulokset valmistuvat vuoden 2006 loppuun mennessä.

Tutkimusta ohjaa Turun yliopiston hoitotieteen laitoksen johtaja, professori, THT Helena Leino-Kilpi (puh. 02 3338404).

Etukäteen kiittäen osallistumisestasi,

Arja Suikkala
Terveydenhuollon maisteri, terveystieteiden jatko-opiskelija
xxx (yhteystiedot poistettu)

TURUN YLIOPISTO
 Hoitotieteen laitos
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OPISKELIJAKYSELY
 Lomakkeen nro (ei täytetä) _____

KYSELYTUTKIMUS SAIRAANHOITAJAOPISKELIJAN JA POTILAAN VÄLISESTÄ SUHTEESTA

Pyydän Sinua vastaamaan jokaiseen kysymykseen mahdollisimman huolellisesti. Kysymyksiin ei ole oikeita tai väärä vastauksia, vaan nimenomaan **Sinun näkemyses** ovat tärkeitä.

VASTAAJAN TAUSTATIEDOT

Seuraavat kysymykset koskevat taustatietojasi. Valitse ympäröimällä mielestäsi Sinua parhaiten kuvaavan vaihtoehdon numero tai kirjoita vastaus sille varattuun tilaan.

01 Ikä _____ vuotta

02 Sukupuoli 1 mies
 2 nainen

03 Koulutus 1 lukio tai ylioppilastutkinto
 2 sosiaali- ja/tai terveystieteen toisen asteen tutkinto
 (esim. lähihoitaja tai perushoitaja)
 3 muu, mikä? _____

04 Oletko työskennellyt terveydenhuoltoalan työtehtävissä ennen nykyisiä hoitotyön opintojasi?
 1 kyllä
 2 en

05 Onko Sinulla muuta kokemusta sairaiden hoitamisesta (esim. perheenjäsenen hoitaminen)?

1 kyllä Ketä olet hoitanut?

 2 ei

- 06 Missä koulutusohjelmassa opiskelet?
- 1 hoitotyö - sairaanhoitaja
 - 2 hoitotyö - terveydenhoitaja
 - 3 hoitotyö - kätilö
 - 4 ensihoito
- 07 Minkä opintovuoden opintoihin tämä harjoittelu liittyy?
- 1 I opintovuoden
 - 2 II opintovuoden
 - 3 III opintovuoden
 - 4 IV opintovuoden
 - 5 V opintovuoden
- 08 Kuinka pitkä harjoittelujakso Sinulla on tällä osastolla?
- 1 alle 2 viikkoa
 - 2 2 viikkoa
 - 3 3 viikkoa
 - 4 4 viikkoa
 - 5 5 viikkoa
 - 6 6 viikkoa
 - 7 yli 6 viikkoa
- 09 Millaisena olet kokenut ohjatun harjoittelun tällä osastolla?
- 5 erittäin innostavana
 - 4 jokseenkin innostavana
 - 3 en turhauttavana, mutta en innostavanakaan
 - 2 jokseenkin turhauttavana
 - 1 erittäin turhauttavana
- 10 Onko Sinulla nimetty omapotilas, jota olet hoitanut työvuorosi aikana?
- 1 kyllä
 - 2 ei

11 Onko Sinulla mielestäsi ollut riittävästi aikaa potilaalle?

1 kyllä

2 ei. Mikä on mielestäsi ollut syy tähän?

3 en osaa sanoa _____

12 Kuka on tukenut Sinua potilassuhteeseen liittyvissä asioissa? Voit tarvittaessa valita useamman kuin yhden vaihtoehdon.

1 opettaja

2 harjoittelua ohjaava sairaanhoitaja

3 opiskelijatoveri

4 joku muu, kuka? _____

5 ei kukaan

OPISKELIJAN JA POTILAAN SUHTEEN KESKEISET PIIRTEET

5(12)

Seuraavat väittämät kuvaavat opiskelijan ja potilaan välistä suhdetta. Valitse ympyröimällä **Sinun ja Sinulle merkityksellisen potilaan suhdetta** parhaiten kuvaava vastausvaihtoehto. Pyydän Sinua arvioimaan jokaista väittämää siinä toimintaympäristössä, jossa olet tällä hetkellä ohjatussa harjoittelussa.

5 = Täysin samaa mieltä
 4 = Jokseenkin samaa mieltä
 3 = En samaa, mutta en eri mieltäkään
 2 = Jokseenkin eri mieltä
 1 = Täysin eri mieltä

13	Olen toiminut potilaan kanssa yhteisymmärryksessä molempien parasta silmällä pitäen.	5	4	3	2	1
14	Potilaan toiveet ovat ohjanneet toimintaani.	5	4	3	2	1
15	Olen oppinut tuntemaan potilaan yksilöllisenä persoonana.	5	4	3	2	1
16	Potilas on keskustellut kanssani luottamuksellisista asioista.	5	4	3	2	1
17	Potilas on keskustellut kanssani omista tunteistaan.	5	4	3	2	1
18	Oppiminen on ollut etusijalla kaikessa toiminnassani.	5	4	3	2	1
19	Olen osallistunut potilaan hoitoon sairaanhoitajan mukana.	5	4	3	2	1
20	Potilas on jäänyt minulle vieraaksi.	5	4	3	2	1
21	Hoitotoimenpiteen tekninen suorittaminen on vienyt kaiken huomioni.	5	4	3	2	1
22	Keskustelu minun ja potilaan välillä on ollut hyvin vähäistä.	5	4	3	2	1
23	Oma näkemykseni potilaan hyvästä on ollut toimintani lähtökohtana.	5	4	3	2	1
24	Olen tehnyt päätöksiä potilaan hoitoon liittyvissä asioissa.	5	4	3	2	1
25	Olen tutustunut potilaaseen ensisijaisesti potilaana, jolla on tietty sairaus.	5	4	3	2	1
26	Olen keskustellut potilaan kanssa hänen päivittäiseen hoitoonsa liittyvistä asioista.	5	4	3	2	1
27	Olen keskustellut potilaan kanssa yleisistä puheenaiheista, kuten säästä, tv-ohjelmista ym.	5	4	3	2	1

OPISKELIJAN TOIMINTA POTILAAN KANSSA

6(12)

Seuraavat väittämät kuvaavat opiskelijan toimintaa potilaan kanssa. Valitse ympyröimällä vaihtoehto, joka mielestäsi parhaiten kuvaa **toimintaasi Sinulle merkityksellisen potilaan kanssa**. Pyydän Sinua arvioimaan jokaista väittämää siinä toimintaympäristössä, jossa olet tällä hetkellä ohjatussa harjoittelussa.

5 = Täysin samaa mieltä
 4 = Jokseenkin samaa mieltä
 3 = En samaa, mutta en eri mieltäkään
 2 = Jokseenkin eri mieltä
 1 = Täysin eri mieltä

Hoitaessani potilasta....

28 olen auttanut potilasta parhaan kykyini mukaan.	5	4	3	2	1
29 olen huolehtinut potilaan päivittäiseen hoitoon liittyvistä asioista.	5	4	3	2	1
30 olen selvittänyt potilaalle, mikä hänelle on hyväksi.	5	4	3	2	1
31 olen ohjannut potilasta tekemään itse hänen hoitoonsa liittyviä asioita.	5	4	3	2	1
32 olen hoitotilanteessa katsonut vierestä, kuinka sairaanhoitaja on toiminut.	5	4	3	2	1
33 olen hoitotilanteessa jäljitellyt sairaanhoitajan toimintaa.	5	4	3	2	1
34 olen kuunnellut potilaan mieltä painavia asioita.	5	4	3	2	1
35 olen potilaan pyynnöstä kertonut hänen asioitaan muille hoitoon osallistuville ammatti-ihmisille.	5	4	3	2	1
36 olen rohkaissut potilasta.	5	4	3	2	1

POTILAAN TOIMINTA OPISKELIJAN KANSSA

7(12)

Seuraavat väittämät kuvaavat potilaan toimintaa opiskelijan kanssa. Valitse ympyröimällä **Sinulle merkityksellisen potilaan toimintaa** parhaiten kuvaava vastausvaihtoehto. Pyydän Sinua arvioimaan jokaista väittämää siinä toimintaympäristössä, jossa olet tällä hetkellä ohjatussa harjoittelussa.

5 = Täysin samaa mieltä
 4 = Jokseenkin samaa mieltä
 3 = En samaa, mutta en eri mieltäkään
 2 = Jokseenkin eri mieltä
 1 = Täysin eri mieltä

Hoitaessani potilasta....

37	potilas on ollut oman tilanteensa asiantuntija.	5	4	3	2	1
38	potilas on esittänyt minulle mielipiteensä omaa hoitoaan koskevista asioista.	5	4	3	2	1
39	potilas on antanut minulle arvokasta tietoa sairauteensa liittyvistä asioista.	5	4	3	2	1
40	potilas on neuvonut minua hoitotoimissa, eli miten minun tulee toimia.	5	4	3	2	1
41	potilas on antanut minulle palautetta toiminnastani.	5	4	3	2	1
42	potilas on kysynyt minulta neuvoja hoitoonsa liittyvissä asioissa.	5	4	3	2	1
43	potilas on myötäillyt tekemiäni ehdotuksia.	5	4	3	2	1
44	potilas on hoitotilanteessa ollut toiminnan kohde, jolla olen harjoitellut hoitotyössä tarvittavia taitoja.	5	4	3	2	1
45	potilas on hoitotilanteessa seurannut toimintaani ulkopuolisena osallistumatta siihen itse.	5	4	3	2	1

OPISKELIJAN OMINAISUUDET

8(12)

Seuraavat väittämät kuvaavat opiskelijan ominaisuuksia. Valitse ympäröimällä vaihtoehto, joka mielestäsi parhaiten kuvaa **Sinua hoitaessasi Sinulle merkityksellistä potilasta**. Pyydän Sinua arvioimaan jokaista väittämää siinä toimintaympäristössä, jossa olet tällä hetkellä ohjatussa harjoittelussa.

5 = Täysin samaa mieltä
 4 = Jokseenkin samaa mieltä
 3 = En samaa, mutta en eri mieltäkään
 2 = Jokseenkin eri mieltä
 1 = Täysin eri mieltä

Hoitaessani potilasta...

46 olen ollut huumorintajuinen.	5	4	3	2	1
47 olen ollut myötätuntoinen.	5	4	3	2	1
48 olen kestänyt hyvin potilaalta saamani palautteen, sikäli kuin olen sitä saanut.	5	4	3	2	1
49 olen säilyttänyt rauhallisuuteni.	5	4	3	2	1
50 olen suhtautunut potilaaseen tasavertaisena ihmisenä.	5	4	3	2	1
51 olen osannut vastata potilaan kysymyksiin.	5	4	3	2	1
52 olen ollut huolellinen suorittaessani potilaan hoitoon liittyviä toimenpiteitä.	5	4	3	2	1
53 olen pystynyt keskustelemaan potilaan kanssa luontevasti monenlaisista asioista.	5	4	3	2	1

POTILAAN OMINAISUUDET

9(12)

Seuraavat väittämät kuvaavat potilaan ominaisuuksia. Valitse ympäröimällä vaihtoehto, joka mielestäsi parhaiten kuvaa **hoitamaasi Sinulle merkityksellistä potilasta**. Pyydän Sinua arvioimaan jokaista väittämää siinä toimintaympäristössä, jossa olet tällä hetkellä ohjatussa harjoittelussa.

5 = Täysin samaa mieltä
 4 = Jokseenkin samaa mieltä
 3 = En samaa, mutta en eri mieltäkään
 2 = Jokseenkin eri mieltä
 1 = Täysin eri mieltä

Hoitamani potilas...

54 on ollut halukas keskustelemaan asioistaan kanssani.	5	4	3	2	1
55 on ollut huumorintajuinen.	5	4	3	2	1
56 on vaikuttanut fyysisesti hyvävointiselta.	5	4	3	2	1
57 on suhtautunut asioihin valoisasti.	5	4	3	2	1
58 on tarvinnut toisten apua päivittäisissä toiminnoissaan.	5	4	3	2	1
59 on ilmaissut, että potilaan velvollisuus on osallistua opiskelijoiden opetustoimintaan.	5	4	3	2	1
60 on mielestäni suhtautunut minuun yhtä luottavaisesti kuin sairaanhoitajaankin.	5	4	3	2	1
61 on ollut kiinnostunut itsensä hoitamisesta.	5	4	3	2	1

TOIMINTAILMAPIIRI

10(12)

Seuraavat väittämät kuvaavat **osastolla vallitsevaa toimintailmapiiriä**. Valitse ympäröimällä vaihtoehto, joka mielestäsi parhaiten kuvaa ilmapiiriä siinä toimintaympäristössä, jossa olet tällä hetkellä ohjatussa harjoittelussa.

5 = Täysin samaa mieltä
 4 = Jokseenkin samaa mieltä
 3 = En samaa, mutta en eri mieltäkään
 2 = Jokseenkin eri mieltä
 1 = Täysin eri mieltä

62 Sairaanhoitajien toiminta potilaiden kanssa on ollut esimerkillistä.	5	4	3	2	1
63 Sairaanhoitajat ovat suhtautuneet minuun myönteisesti.	5	4	3	2	1
64 Sairaanhoitajat ovat rohkaisseet minua kaikessa toiminnassani.	5	4	3	2	1
65 Sairaanhoitajat ovat antaneet minulle kannustavaa palautetta.	5	4	3	2	1
66 Osastolla minulla on ollut mahdollisuus keskustella potilaan kanssa kenenkään häiritsemättä.	5	4	3	2	1

SUHTEEN MERKITYS OPISKELIJALLE

11(12)

Seuraavat väittämät kuvaavat opiskelijan ja potilaan välisen suhteen merkitystä opiskelijalle. Valitse ympyröimällä vaihtoehto, joka mielestäsi parhaiten kuvaa **Sinun ja Sinulle merkityksellisen potilaan suhteen merkitystä itsellesi**. Pyydän Sinua arvioimaan jokaista väittämää siinä toimintaympäristössä, jossa olet tällä hetkellä ohjatussa harjoittelussa.

5 = Täysin samaa mieltä
 4 = Jokseenkin samaa mieltä
 3 = En samaa, mutta en eri mieltäkään
 2 = Jokseenkin eri mieltä
 1 = Täysin eri mieltä

Hoitaessani potilasta...

67 olen kasvanut ihmisenä.	5	4	3	2	1
68 olen kehittynyt hoitotyöntekijänä.	5	4	3	2	1
69 olen oppinut kunnioittamaan potilasta ainutlaatuisena persoonana.	5	4	3	2	1
70 potilaan sairauteen liittyvä tietämykseni on lisääntynyt.	5	4	3	2	1
71 olen tuntenut työn iloa siitä, että olen toiminnallani onnistunut auttamaan potilasta.	5	4	3	2	1
72 olen tuntenut työn iloa siitä, että olen onnistunut luomaan hyvän hoitosuhteen potilaaseen.	5	4	3	2	1
73 olen saanut lisää varmuutta kohdata uusia hoitamiseen liittyviä tilanteita.	5	4	3	2	1
74 olen saanut vahvistusta sille, että uravalintani on ollut oikea.	5	4	3	2	1

SUHTEEN MERKITYS POTILAALLE

12(12)

Seuraavat väittämät kuvaavat opiskelijan ja potilaan välisen suhteen merkitystä potilaalle. Valitse ympyröimällä vaihtoehto, joka mielestäsi parhaiten **kuvaa Sinun ja Sinulle merkityksellisen potilaan suhteen merkitystä potilaalle**. Pyydän Sinua arvioimaan jokaista väittämää siinä toimintaympäristössä, jossa olet tällä hetkellä ohjatussa harjoittelussa.

5 = Täysin samaa mieltä
 4 = Jokseenkin samaa mieltä
 3 = En samaa, mutta en eri mieltäkään
 2 = Jokseenkin eri mieltä
 1 = Täysin eri mieltä

Potilas on ilmaissut, että

- | | | | | | |
|---|---|---|---|---|---|
| 75 olen toiminnallani edistänyt hänen terveyttään ja hyvinvointiaan. | 5 | 4 | 3 | 2 | 1 |
| 76 olen toiminnallani vähentänyt hänen jännitystään. | 5 | 4 | 3 | 2 | 1 |
| 77 potilas on saanut minulta tietoa, joka on auttanut häntä ymmärtämään hoitoaan. | 5 | 4 | 3 | 2 | 1 |
| 78 potilas on saanut minulta apua aina tarvitessaan. | 5 | 4 | 3 | 2 | 1 |
| 79 potilas on noudattanut antamiani hoito-ohjeita edistääkseen paranemistaan. | 5 | 4 | 3 | 2 | 1 |
| 80 Mitä muuta haluat kertoa Sinun ja potilaan väliseen suhteeseen liittyvistä asioista?
Jatka tarvittaessa kääntöpuolelle. | | | | | |

Kiitos vastauksistasi!

TURUN YLIOPISTO
Hoitotieteen laitos
20014 TURUN YLIOPISTO

POTILASKYSELY

1.9.2005

Arvoisa vastaaja!

Pyydän kohteliaimmin Teitä osallistumaan väitöskirjatutkimukseeni. Tutkimuksessa selvitetään näkemystänne toteutuneesta sairaanhoitajaopiskelijan ja potilaan välisestä suhteesta tämän sairaalajakson aikana. Sairanhoitajaopiskelijalla tarkoitetaan tässä yhteydessä sairaanhoitajan pätevyyttä tavoittelevaa opiskelijaa, joka on ohjatussa harjoittelussa osastollanne. Osallistuminen merkitsee vastaamisesta yhteen kyselyyn ennen lähettöänne sairaalasta.

Tutkimus on aihepiiriltään uusi ja vähän tunnettu, joten vastauksenne on tärkeä. Tutkimuksesta saatavaa tietoa voidaan hyödyntää sairaanhoitajaopiskelijoiden ohjatussa harjoittelussa huomioimalla sekä opiskelijoita että potilaita koskevat näkökohdat. Tutkimuksen avulla voidaan edistää opiskelijan ja potilaan yhteistyösuhteen oppimiseen liittyvien käytäntöjen kehittymistä sellaisiksi, että niillä on opiskelijoiden persoonallisen ja ammatillisen kasvun lisäksi myönteisiä vaikutuksia myös potilaiden hoidon laatuun.

Kysely on luottamuksellinen eikä henkilöllisyytenne tule ilmi missään tutkimuksen vaiheessa. Tutkimukseen osallistuu sairaanhoitajaopiskelijoita ja potilaita eri puolilta Suomea. Tutkimuksen tuloksia käsitellään kokonaisuutena, jolloin yksittäisten potilaiden vastauksia ei ole mahdollista tunnistaa. Vastaukset menevät suljetussa kirjekuoressa ainoastaan tutkijan käyttöön. Vastaaminen on luonnollisesti Teille vapaaehtoista, mutta toivon Teidän haluavan osaltanne vaikuttaa hoitotyön opetuksen kehittämiseen vastaamalla kyselyyn. Tutkimukseen vastaaminen tai vastaamatta jättäminen ei mitenkään vaikuta hoitoon. Lisäksi on tärkeää, että vastaatte kaikkiin kysymyksiin. Vastattuanne kyselyyn palauttakaa lomake suljettuna oheiseen kirjekuoreen hoitajalta saamanne ohjeen mukaan.

Tutkimus liittyy terveystieteiden tohtorin opintoihini Turun yliopiston lääketieteellisessä tiedekunnassa, hoitotieteen laitoksella. Tutkimukselle on saatu sen edellyttämä tutkimuslupa ja hoitohenkilökunta on tietoinen tutkimuksesta. Tutkimuksen tulokset valmistuvat vuoden 2006 loppuun mennessä.

Tutkimusta ohjaa Turun yliopiston hoitotieteen laitoksen johtaja, professori, THT Helena Leino-Kilpi (puh. 02 3338404).

Etukäteen kiittäen osallistumisestanne,

Arja Suikkala
Terveydenhuollon maisteri, terveystieteiden jatko-opiskelija
xxx (yhteystiedot poistettu)

TURUN YLIOPISTO
 Hoitotieteen laitos
 20014 TURUN YLIOPISTO

POTILASKYSELY

Lomakkeen nro (ei täytetä) _____

KYSELYTUTKIMUS SAIRAANHOITAJAOPISEKELIJAN JA POTILAAN VÄLISESTÄ SUHTEESTA

Pyydän Teitä vastaamaan jokaiseen kysymykseen mahdollisimman huolellisesti. Kysymyksiin ei ole oikeita tai vääriä vastauksia, vaan nimenomaan Teidän näkemyksenne ovat tärkeitä.

VASTAAJAN TAUSTATIEDOT

Seuraavat kysymykset koskevat taustatietojanne. Valitkaa ympyröimällä mielestänne Teitä parhaiten kuvaavan vaihtoehdon numero tai kirjoittakaa vastaus sille varattuun tilaan.

01 Ikä ____ vuotta

02 Sukupuoli 1 mies
 2 nainen

03 Koulutus (korkein) 1 kansakoulu ja/tai keskikoulu tai peruskoulu
 2 ammattikurssi tai työn ohessa saatu koulutus
 3 toisen asteen tutkinto
 (esim. ylioppilas tai ammatillinen perustutkinto)
 4 opistoasteen tutkinto
 5 ammattikorkeakoulututkinto
 6 yliopistotutkinto
 7 muu, mikä? _____

04 Siviilisäätö 1 avioliitossa / avoliitossa
 2 naimaton
 3 eronnut
 4 leski

05 Kuinka monta kertaa olette aikaisemmin ollut sairaalahoitossa?

- 1 en kertaakaan
- 2 kerran aikaisemmin
- 3 kaksi kertaa aikaisemmin
- 4 kolme kertaa tai useammin

06 Milloin tulitte tälle osastolle? Merkitkää tarkka päivämäärä: _____

Milloin vastasitte tähän kyselyyn? Merkitkää tarkka päivämäärä: _____

07 Miksi olette nyt sairaalassa?

- 1 sairauden hoidon takia kutsuttuna
- 2 tutkimuksissa kutsuttuna
- 3 äkillisesti päivystyspotilaana

08 Minkälaisessa potilashuoneessa olette täällä ollut? Jos potilashuoneenne on vaihtunut, voitte valita useamman kuin yhden vaihtoehdon.

- 1 yhden hengen huoneessa
 - 2 kahden hengen huoneessa
 - 3 kolmen hengen huoneessa
 - 4 yli kolmen hengen huoneessa
 - 5 muussa, missä?
- _____

09 Onko sairaanhoitajaopiskelijoita aikaisemmin osallistunut hoitoonne?

- 1 kyllä
- 2 ei
- 3 en osaa sanoa

10 Onko Teillä nimetty sairaanhoitajaopiskelija, joka on toistuvasti osallistunut hoitoonne?

- 1 kyllä
- 2 ei
- 3 en osaa sanoa

11 Onko sairaanhoitajaopiskelijalla mielestänne ollut riittävästi Teille aikaa?

1 kyllä

2 ei. Mikä on mielestänne ollut syy tähän?

3 en osaa sanoa

12 Onko Teillä itsellänne kokemusta sairaiden hoitamisesta?

1 kyllä. Ketä olette hoitanut?

2 ei

Seuraavat väittämät kuvaavat sairaanhoitajaopiskelijan ja potilaan välistä suhdetta. Valitkaa ympyröimällä vaihtoehto, joka mielestänne parhaiten kuvaa **Teidän ja opiskelijan suhdetta**. Pyydän Teitä arvioimaan jokaista väittämää tämän hoitojakson ajalta.

5 = Täysin samaa mieltä
 4 = Jokseenkin samaa mieltä
 3 = En samaa, mutta en eri mieltäkään
 2 = Jokseenkin eri mieltä
 1 = Täysin eri mieltä

13	Olen toiminut opiskelijan kanssa yhteisymmärryksessä molempien parasta silmällä pitäen.	5	4	3	2	1
14	Toiveeni ovat ohjanneet opiskelijan toimintaa.	5	4	3	2	1
15	Olen oppinut tuntemaan opiskelijan yksilöllisenä persoonana.	5	4	3	2	1
16	Olen keskustellut opiskelijan kanssa luottamuksellisista asioista.	5	4	3	2	1
17	Olen keskustellut tunteistani opiskelijan kanssa.	5	4	3	2	1
18	Oppiminen on mielestäni ollut etusijalla opiskelijan toiminnassa.	5	4	3	2	1
19	Opiskelija on osallistunut hoitooni sairaanhoitajan mukana.	5	4	3	2	1
20	Opiskelija on jäänyt minulle vieraaksi.	5	4	3	2	1
21	Opiskelijan huomio on mielestäni kohdistunut yksinomaan hoitotoimenpiteen suorittamiseen.	5	4	3	2	1
22	Keskustelu minun ja opiskelijan välillä on ollut hyvin vähäistä.	5	4	3	2	1
23	Opiskelijan oma näkemys potilaan hyvästä on mielestäni ollut hänen toimintansa lähtökohtana.	5	4	3	2	1
24	Opiskelija on omien odotusteni mukaan tehnyt päätöksiä hoitooni liittyvissä asioissa.	5	4	3	2	1
25	Opiskelija on tutustunut minuun ensisijaisesti potilaana, jolla on tietty sairaus.	5	4	3	2	1
26	Opiskelija on keskustellut kanssani päivittäiseen hoitooni liittyvistä asioista.	5	4	3	2	1
27	Opiskelija on keskustellut kanssani yleisistä puheenaiheista, kuten säästä, tv-ohjelmista ym.	5	4	3	2	1

Seuraavat väittämät kuvaavat sairaanhoitajaopiskelijan toimintaa potilaan kanssa. Valitkaa ympäröimällä vaihtoehto, joka mielestänne parhaiten kuvaa **Teitä hoitaneen opiskelijan toimintaa**. Pyydän Teitä arvioimaan jokaista väittämää tämän hoitajakson ajalta.

5 = Täysin samaa mieltä
 4 = Jokseenkin samaa mieltä
 3 = En samaa, mutta en eri mieltäkään
 2 = Jokseenkin eri mieltä
 1 = Täysin eri mieltä

Hoitaessaan minua...

28	opiskelija on mielestäni auttanut minua parhaan kykynsä mukaan.	5	4	3	2	1
29	opiskelija on huolehtinut päivittäiseen hoitooni liittyvistä asioista.	5	4	3	2	1
30	opiskelija on selvittänyt, mikä minulle on hyväksi.	5	4	3	2	1
31	opiskelija on ohjannut minua tekemään itse hoitooni liittyviä asioita.	5	4	3	2	1
32	opiskelija on hoitotilanteessa katsonut vierestä, kuinka sairaanhoitaja on toiminut kanssani.	5	4	3	2	1
33	opiskelija on hoitotilanteessa jäljitellyt sairaanhoitajan toimintaa.	5	4	3	2	1
34	opiskelija on kuunnellut mieltäni painavia asioita.	5	4	3	2	1
35	opiskelija on pyynnöstäni kertonut asioitani muille hoitooni osallistuville ammatti-ihmisille.	5	4	3	2	1
36	opiskelija on rohkaissut minua.	5	4	3	2	1

Seuraavat väittämät kuvaavat potilaan toimintaa sairaanhoitajaopiskelijan kanssa. Valitkaa ympäröimällä vaihtoehto, joka mielestänne parhaiten kuvaa **omaa toimintaanne opiskelijan kanssa**. Pyydän Teitä arvioimaan jokaista väittämää tämän hoitojakson ajalta.

- 5 = Täysin samaa mieltä
 4 = Jokseenkin samaa mieltä
 3 = En samaa, mutta en eri mieltäkään
 2 = Jokseenkin eri mieltä
 1 = Täysin eri mieltä

Potilaana...

37 olen kokenut olevani oman tilanteeni asiantuntija.	5	4	3	2	1
38 olen esittänyt opiskelijalle mielipiteeni omaa hoitoani koskevista asioista.	5	4	3	2	1
39 olen antanut opiskelijalle arvokasta tietoa sairauteeni liittyvistä asioista.	5	4	3	2	1
40 olen neuvonut opiskelijaa hoitotoimissa, eli miten hänen tulee toimia.	5	4	3	2	1
41 olen antanut opiskelijalle palautetta hänen toiminnastaan.	5	4	3	2	1
42 olen kysynyt opiskelijalta neuvoja hoitoni liittyvissä asioissa.	5	4	3	2	1
43 olen myötäillyt opiskelijan minulle tekemiä ehdotuksia.	5	4	3	2	1
44 olen hoitotilanteessa kokenut olleeni toiminnan kohde, jolla opiskelija on harjoitellut hoitotyössä tarvittavia taitoja.	5	4	3	2	1
45 olen hoitotilanteessa seurannut ulkopuolisena opiskelijan toimintaa osallistumatta siihen itse.	5	4	3	2	1

Seuraavat väittämät kuvaavat sairaanhoitajaopiskelijan ominaisuuksia. Valitkaa ympäröimällä vaihtoehto, joka mielestänne parhaiten kuvaa **Teitä hoitanutta opiskelijaa**. Pyydän Teitä arvioimaan jokaista väittämää tämän hoitojakson ajalta.

5 = Täysin samaa mieltä
 4 = Jokseenkin samaa mieltä
 3 = En samaa, mutta en eri mieltäkään
 2 = Jokseenkin eri mieltä
 1 = Täysin eri mieltä

Opiskelija...

46 on ollut huumorintajuinen.	5	4	3	2	1
47 on ollut myötätuntoinen.	5	4	3	2	1
48 on kestänyt hyvin hänelle antamani palautteen, sikäli kuin olen sitä antanut.	5	4	3	2	1
49 on säilyttänyt rauhallisuutensa.	5	4	3	2	1
50 on suhtautunut minuun tasavertaisena ihmisenä.	5	4	3	2	1
51 on osannut vastata esittämiini kysymyksiin odotusteni mukaan.	5	4	3	2	1
52 on ollut huolellinen suorittaessaan hoitooni liittyviä toimenpiteitä.	5	4	3	2	1
53 on pystynyt keskustelemaan kanssani luontevasti monenlaista asioista.	5	4	3	2	1

Seuraavat väittämät kuvaavat potilaan ominaisuuksia. Valitkaa ympäröimällä vaihtoehto, joka mielestänne parhaiten kuvaa **Teitä itseänne potilaana**. Pyydän Teitä arvioimaan jokaista väittämää tämän hoitajakson ajalta.

- 5 = Täysin samaa mieltä
 4 = Jokseenkin samaa mieltä
 3 = En samaa, mutta en eri mieltäkään
 2 = Jokseenkin eri mieltä
 1 = Täysin eri mieltä

Potilaana...

54	olen ollut halukas keskustelemaan asioistani opiskelijan kanssa.	5	4	3	2	1
55	olen ollut huumorintajuinen.	5	4	3	2	1
56	olen tuntenut fyysisen vointini hyväksi.	5	4	3	2	1
57	olen suhtautunut asioihin valoisasti.	5	4	3	2	1
58	olen tarvinnut toisten apua päivittäisissä toiminnoissani.	5	4	3	2	1
59	olen pitänyt velvollisuutenani osallistua opiskelijoiden opetustoimintaan.	5	4	3	2	1
60	olen suhtautunut opiskelijaan yhtä luottavaisesti kuin sairaanhoitajaankin.	5	4	3	2	1
61	olen ollut kiinnostunut itseni hoitamisesta.	5	4	3	2	1

Seuraavat väittämät kuvaavat osaston toimintailmapiiriä. Valitkaa ympäröimällä vaihtoehto, joka mielestänne parhaiten kuvaa **osaston ilmapiiriä** tämän hoitajakson aikana.

5 = Täysin samaa mieltä
 4 = Jokseenkin samaa mieltä
 3 = En samaa, mutta en eri mieltäkään
 2 = Jokseenkin eri mieltä
 1 = Täysin eri mieltä

62	Osaston sairaanhoitajat ovat mielestäni toimineet hyvinä esimerkkeinä opiskelijoille.	5	4	3	2	1
63	Osaston sairaanhoitajat ovat mielestäni suhtautuneet opiskelijoihin myönteisesti.	5	4	3	2	1
64	Osaston sairaanhoitajat ovat mielestäni rohkaisseet opiskelijoita siinä, mitä opiskelijat ovat tehneet.	5	4	3	2	1
65	Osaston sairaanhoitajat ovat mielestäni antaneet opiskelijoille kannustavaa palautetta.	5	4	3	2	1
66	Osastolla minulla on ollut mahdollisuus keskustella opiskelijan kanssa kenenkään häiritsemättä.	5	4	3	2	1

Seuraavat väittämät kuvaavat **sairaanhoitajaopiskelijan ja potilaan välisen suhteen merkitystä opiskelijalle**. Valitkaa ympäröimällä mielestänne sopivin vaihtoehto. Pyydän Teitä arvioimaan jokaista väittämää tämän hoitajakson ajalta.

- 5 = Täysin samaa mieltä
 4 = Jokseenkin samaa mieltä
 3 = En samaa, mutta en eri mieltäkään
 2 = Jokseenkin eri mieltä
 1 = Täysin eri mieltä

Hoitaessaan minua...

67	opiskelija on mielestäni kasvanut ihmisenä.	5	4	3	2	1
68	opiskelija on mielestäni kehittynyt hoitotyöntekijänä.	5	4	3	2	1
69	opiskelija on mielestäni oppinut kunnioittamaan potilasta ainutlaatuisena persoonana.	5	4	3	2	1
70	opiskelija on mielestäni laajentanut sairauteeni liittyvää tietämystään.	5	4	3	2	1
71	opiskelija on ollut ilmeisen tyytyväinen siihen, mitä hän on onnistunut tekemään hyväkseni.	5	4	3	2	1
72	opiskelija on ollut ilmeisen tyytyväinen hoitosuhteeseemme.	5	4	3	2	1
73	opiskelija on mielestäni saanut lisää varmuutta kohdata uusia hoitamiseen liittyviä tilanteita.	5	4	3	2	1
74	opiskelijan käsitys oikeasta uravalinnasta on uskoakseni vahvistunut.	5	4	3	2	1

Seuraavat väittämät kuvaavat **sairaanhoitajaopiskelijan ja potilaan välisen suhteen merkitystä Teille itsellenne potilaana**. Valitkaa ympyröimällä mielestänne sopivin vaihtoehto. Pyydän Teitä arvioimaan jokaista väittämää tämän hoitajakson ajalta.

5 = Täysin samaa mieltä
 4 = Jokseenkin samaa mieltä
 3 = En samaa, mutta en eri mieltäkään
 2 = Jokseenkin eri mieltä
 1 = Täysin eri mieltä

- | | | | | | | |
|----|---|---|---|---|---|---|
| 75 | Opiskelija on toiminnallaan edistänyt terveyttäni ja hyvinvointiani. | 5 | 4 | 3 | 2 | 1 |
| 76 | Opiskelija on toiminnallaan vähentänyt kokemaani jännitystä. | 5 | 4 | 3 | 2 | 1 |
| 77 | Olen saanut opiskelijalta tietoa, joka on auttanut minua ymmärtämään hoitoani. | 5 | 4 | 3 | 2 | 1 |
| 78 | Olen saanut opiskelijalta apua aina kun olen sitä tarvinnut. | 5 | 4 | 3 | 2 | 1 |
| 79 | Olen noudattanut opiskelijalta saamiani hoito-ohjeita edistääkseni paranemistani. | 5 | 4 | 3 | 2 | 1 |

80 Mitä muuta haluatte kertoa Teidän ja opiskelijan väliseen suhteeseen liittyvistä asioista?
 Jatkaa tarvittaessa kääntöpuolelle.

Kiitos vastauksistanne!

Appendix 9 Means and SDs of sum variables and questions concerning types of relationship for all students and students in three types of relationship I (1)

	All students (n=191-192)		Students in MR (n=13-14)		Students in AR (n=69-70)		Students in FR (n=107-108)	
	Mean	(SD)	Mean	(SD)	Mean	(SD)	Mean	(SD)
Sum variables and questions concerning	2.93	(0.61)	3.82	(0.35)	2.95	(0.57)	2.81	(0.57)
Mechanistic relationship								
Focused on student learning	3.83	(1.01)	<u>3.93</u>	(0.92)	3.80	(1.11)	3.83	(0.96)
Externally directed by supervising nurse's actions	4.52	(0.90)	<u>4.86</u>	(0.36)	4.47	(0.91)	4.50	(0.94)
Student and patient do not know each other	1.84	(1.04)	<u>3.07</u>	(1.33)	1.93	(1.07)	1.62	(0.85)
Student's attention focused on technical performance	2.07	(1.00)	<u>3.36</u>	(1.08)	1.89	(0.89)	2.03	(0.93)
Negligible discussion between student and patient	1.69	(0.91)	<u>3.36</u>	(1.01)	1.54	(0.65)	1.56	(0.82)
Student observes nurse's actions	3.61	(1.33)	<u>4.43</u>	(0.85)	3.66	(1.26)	3.47	(1.38)
Student imitates nurse's actions	3.75	(1.07)	<u>4.36</u>	(0.63)	3.99	(1.00)	3.52	(1.09)
Patient is passive object of nursing actions	2.93	(1.24)	<u>3.93</u>	(0.92)	2.96	(1.21)	2.78	(1.25)
Patient observes student's actions	2.16	(1.12)	<u>3.07</u>	(1.14)	2.33	(1.15)	1.93	(1.02)
Authoritative relationship								
Focused on assumptions of what is best for the patient	4.14	(0.41)	3.33	(0.42)	4.39	(0.25)	4.08	(0.34)
Patient care decisions taken by student	3.95	(1.14)	4.14	(0.77)	<u>4.36</u>	(0.76)	3.66	(1.29)
Student knows the patient as a patient with a certain disease	3.34	(1.17)	2.43	(1.28)	<u>3.54</u>	(1.14)	3.32	(1.12)
Conversation on care-related issues	2.91	(1.20)	2.64	(1.15)	3.31	(1.06)	2.68	(1.21)
Conversation on everyday issues character	4.39	(0.86)	2.86	(1.46)	<u>4.64</u>	(0.48)	4.42	(0.75)
Student helps patient to the best of her ability	4.93	(0.27)	4.79	(0.43)	<u>4.96</u>	(0.20)	4.94	(0.28)
Student provides daily care	4.82	(0.45)	4.43	(0.94)	<u>4.93</u>	(0.26)	4.81	(0.42)
Student clarifies what is best for the patient	4.22	(0.85)	3.07	(1.00)	4.49	(0.58)	4.19	(0.85)
Student activates patient in self-care	4.25	(0.85)	3.07	(1.39)	<u>4.61</u>	(0.60)	4.17	(0.74)
Patient asks student for advice	4.24	(0.87)	2.71	(1.38)	4.41	(0.69)	4.32	(0.71)
Patient agrees to student's suggestions	3.93	(0.87)	2.86	(0.95)	<u>4.26</u>	(0.67)	3.86	(0.83)
Facilitative relationship								
Focused on the common good of both student and patient	4.21	(0.49)	3.09	(0.44)	4.01	(0.35)	4.49	(0.22)
Directed by patient's wishes	4.71	(0.48)	4.23	(0.44)	4.69	(0.50)	4.78	(0.44)
Student and patient know each other personally	4.61	(0.54)	4.14	(0.54)	4.53	(0.58)	4.72	(0.47)
Conversation on confidential matters	4.32	(0.79)	3.57	(0.94)	4.19	(0.86)	4.51	(0.65)
Conversation on patient's emotions	4.03	(1.07)	2.29	(1.33)	3.77	(1.02)	4.43	(0.75)
Student listens to the patient	4.25	(1.01)	2.50	(1.29)	4.06	(0.96)	4.60	(0.68)
Student acts as an advocate for patient	4.69	(0.69)	3.29	(1.33)	4.64	(0.62)	4.90	(0.30)
Student encourages patient	4.24	(1.13)	3.00	(1.52)	3.97	(1.19)	4.57	(0.84)
Patient is expert of own situation	4.64	(0.66)	3.07	(0.73)	4.63	(0.54)	4.85	(0.38)
Patient expresses opinions to student in care-related matters	3.92	(0.95)	3.36	(1.08)	3.57	(1.02)	4.22	(0.77)
Patient provides information to student in matters related to disease	4.26	(0.81)	3.50	(1.02)	3.99	(0.91)	4.54	(0.55)
Patient gives advice to student	4.16	(1.02)	2.64	(1.39)	3.94	(1.05)	4.50	(0.69)
Patient gives feedback to student	3.03	(1.24)	2.29	(1.20)	2.50	(1.14)	3.46	(1.13)
	3.97	(1.16)	2.43	(1.34)	3.70	(1.23)	4.34	(0.85)

MR = Mechanistic relationship, AR = Authoritative relationship, FR = Facilitative relationship
 — = the highest mean value

Appendix 10 Students' and patients' views on contextual factors related to types of student-patient relationship and the consequences of the student-patient relationship (1/1)

Sum variables and questions concerning	Students n=288-290		Patients n=220-234		P-value	Effect size
	Mean (Sd)	Mean (Sd)	Mean (Sd)	Mean (Sd)		
Student's personal and professional attributes	4.53 (0.37)*	4.49 (0.55)	0.452	0.09		
Sense of humour	4.50 (0.64)*	4.41 (0.81)	<0.001	0.18		
Empathy	4.65 (0.53)*	4.57 (0.67)	0.026	0.14		
Ability to deal with patient feedback	4.54 (0.64)*	4.35 (0.84)	<0.001	0.26		
Ability to remain calm	4.76 (0.46)*	4.71 (0.58)	0.093	0.11		
Recognizing the patient as an equal partner	4.79 (0.50)*	4.72 (0.58)	0.179	0.11		
Ability to answer patient's questions	3.70 (0.79)	4.13 (0.87)	<0.001	0.35		
Ability to perform care-related activities with care	4.77 (0.43)*	4.73 (0.53)	0.007	0.14		
Ability to discuss issues in a natural, unforced manner	4.49 (0.72)*	4.30 (0.95)	<0.001	0.22		
Patient's attributes as a patient	3.76 (0.56)	3.83 (0.58)	0.157	-0.12		
Willingness to talk about one's own situation	4.33 (0.87)*	4.01 (1.10)	0.006	0.17		
Sense of humour	4.43 (0.79)*	4.18 (0.88)	0.002	0.18		
Physical condition	3.46 (1.19)*	3.43 (1.26)	0.496	0.08		
Mood	3.86 (0.99)	4.12 (0.92)	0.016	0.15		
Need for help with daily activities	3.15 (1.38)	3.24 (1.56)	<0.001	0.27		
Attitude to student	4.31 (0.79)	4.31 (0.91)	0.077	0.13		
Attitude to student learning	2.47 (1.27)	3.24 (1.43)	<0.001	0.30		
Commitment to self-care	4.37 (0.78)	4.54 (0.76)	0.024	0.14		
Atmosphere during collaboration	4.16 (0.65)	4.42 (0.58)	P<0.001	-0.42		
Staff nurses' performance as role models	4.15 (0.80)	4.72 (0.58)	<0.001	0.44		
Staff nurses' attitudes towards students	4.29 (0.75)	4.69 (0.57)	<0.001	0.31		
Staff nurses' supportive supervision	4.14 (0.85)	4.50 (0.65)	<0.001	0.24		
Staff nurses' encouraging feedback	4.05 (1.01)	4.22 (0.82)	<0.001	0.23		
Privacy for student-patient interaction	4.18 (0.99)*	3.97 (1.29)	<0.001	0.26		
Student's personal and professional growth	4.50 (0.48)*	4.03 (0.71)	P<0.001	0.79		
Growth as human being	4.18 (0.86)*	3.79 (0.93)	<0.001	0.35		
Growth as nurse	4.61 (0.56)*	4.14 (0.86)	<0.001	0.38		
Learned to respect the patient as unique personality	4.56 (0.62)*	4.29 (0.80)	<0.001	0.23		
Expanded knowledge base in patient illness and care	4.63 (0.57)*	3.88 (1.00)	<0.001	0.46		
Student's increased confidence and self-esteem	4.56 (0.51)*	4.22 (0.68)	P<0.001	0.58		
Successful advocacy of what is best for the patient	4.71 (0.57)*	4.22 (0.79)	<0.001	0.36		
Successful involvement in caring relationship with patient	4.60 (0.63)*	4.19 (0.77)	<0.001	0.31		
Confidence to face new situations	4.64 (0.59)*	4.18 (0.79)	<0.001	0.33		
Motivation to pursue nursing as a career	4.26 (0.95)	4.28 (0.84)	0.322	0.10		
Patient's improved health and commitment to self-care	3.92 (0.59)	4.12 (0.78)	P=0.001	-0.29		
Increased sense of health and well-being	3.75 (0.94)	4.31 (0.87)	<0.001	0.34		
Alleviation of tension	3.74 (0.89)	3.96 (1.03)	<0.001	0.25		
Increased knowledge about one's own care	3.81 (0.86)*	3.58 (1.15)	<0.001	0.21		
Receiving help whenever necessary	4.48 (0.72)	4.50 (0.81)	0.019	0.15		
Increased compliance	3.80 (0.82)	4.16 (1.03)	<0.001	0.35		

* indicates where students' mean values higher than patients'

Appendix 11 Means and SDs of sum variables and questions concerning contextual factors and consequences of the relationship for all students and students in three types of relationship (1/1)

	All students (n=192)		Students in MR (n=14)		Students in AR (n=70)		Students in FR (n=108)		P-value
	Mean	(SD)	Mean	(SD)	Mean	(SD)	Mean	(SD)	
Sum variables and questions concerning	4.63	(0.33)	4.35	(0.47)	4.61	(0.32)	4.67	(0.29)	0.023
Student's personal and professional attributes									
Sense of humour	4.60	(0.56)	4.29	(0.47)	4.60	(0.62)	4.64	(0.52)	0.051
Empathy	4.76	(0.47)	4.50	(0.65)	4.77	(0.49)	4.79	(0.43)	0.166
Ability to deal with patient feedback	4.67	(0.61)	4.36	(0.84)	4.63	(0.64)	4.74	(0.54)	0.086
Ability to remain calm	4.84	(0.41)	4.71	(0.61)	4.77	(0.49)	4.91	(0.29)	0.048
Recognizing the patient as an equal partner	4.86	(0.45)	4.71	(0.83)	4.84	(0.40)	4.89	(0.42)	0.247
Ability to answer patient's questions	3.79	(0.79)	3.79	(0.70)	3.77	(0.73)	3.80	(0.84)	0.222
Ability to perform care-related activities with care	4.86	(0.36)	4.71	(0.61)	4.87	(0.34)	4.87	(0.34)	0.167
Ability to discuss issues in a natural, unforced manner	4.63	(0.63)	3.71	(1.14)	4.64	(0.62)	4.74	(0.44)	<0.001
Patient's attributes as a patient	3.82	(0.58)	3.16	(0.87)	3.86	(0.52)	3.87	(0.52)	0.005
Willingness to talk about one's own situation	4.53	(0.80)	3.29	(1.07)	4.50	(0.93)	4.71	(0.45)	<0.001
Sense of humour	4.54	(0.74)	3.64	(1.22)	4.60	(0.77)	4.61	(0.56)	<0.001
Physical condition	3.44	(1.26)	3.07	(1.21)	3.57	(1.17)	3.41	(1.32)	0.025
Mood	3.89	(1.00)	3.29	(1.33)	3.96	(1.01)	3.93	(0.92)	0.099
Need for help with daily activities	3.30	(1.34)	2.93	(1.60)	3.21	(1.37)	3.41	(1.29)	0.330
Attitude to student	4.37	(0.82)	3.64	(1.28)	4.37	(0.77)	4.46	(0.73)	0.048
Attitude to student learning	2.63	(1.32)	1.64	(0.93)	2.64	(1.36)	2.75	(1.28)	0.021
Commitment to self-care	4.44	(0.76)	3.64	(1.34)	4.49	(0.70)	4.52	(0.65)	0.004
Atmosphere during collaboration	4.22	(0.67)	3.80	(0.82)	4.30	(0.65)	4.23	(0.64)	0.037
Staff nurses' performance as role models	4.19	(0.84)	3.93	(1.21)	4.27	(0.76)	4.17	(0.83)	0.331
Staff nurses' attitudes towards students	4.33	(0.78)	3.93	(0.92)	4.47	(0.72)	4.30	(0.79)	0.211
Staff nurses' supportive supervision	4.18	(0.88)	3.71	(0.91)	4.23	(0.87)	4.20	(0.87)	0.352
Staff nurses' encouraging feedback	4.11	(1.04)	3.64	(1.01)	4.20	(1.03)	4.11	(1.04)	0.363
Privacy for student-patient interaction	4.30	(0.97)	3.79	(1.42)	4.33	(0.90)	4.35	(0.94)	0.208
Student's personal and professional growth	4.62	(0.44)	4.43	(0.78)	4.61	(0.41)	4.65	(0.39)	0.445
Growth as human being	4.37	(0.78)	4.21	(1.05)	4.31	(0.75)	4.43	(0.75)	0.401
Growth as nurse	4.70	(0.52)	4.64	(0.84)	4.66	(0.54)	4.73	(0.47)	0.199
Learned to respect the patient as unique personality	4.66	(0.58)	4.43	(0.65)	4.67	(0.61)	4.68	(0.54)	0.367
Expanded knowledge base in patient illness and care	4.75	(0.49)	4.43	(0.94)	4.80	(0.40)	4.76	(0.45)	0.075
Student's increased confidence and self-esteem	4.66	(0.48)	4.20	(0.91)	4.66	(0.44)	4.72	(0.39)	0.049
Successful advocacy of what is best for the patient	4.82	(0.50)	4.57	(1.09)	4.81	(0.43)	4.86	(0.42)	0.181
Successful involvement in caring relationship with patient	4.71	(0.60)	4.00	(1.18)	4.69	(0.60)	4.81	(0.41)	0.001
Confidence to face new situations	4.76	(0.52)	4.71	(0.61)	4.71	(0.57)	4.79	(0.48)	0.698
Motivation to pursue nursing as a career	4.35	(0.94)	3.50	(1.35)	4.43	(0.83)	4.40	(0.90)	0.039
Patient's improved health and commitment to self-care	4.06	(0.58)	3.21	(0.75)	4.12	(0.55)	4.15	(0.48)	<0.001
Increased sense of health and well-being	3.90	(0.97)	2.86	(1.23)	3.91	(1.05)	4.03	(0.79)	0.003
Alleviation of tension	3.86	(0.91)	2.93	(1.14)	3.81	(0.94)	4.02	(0.79)	<0.001
Increased knowledge about one's own care	4.00	(0.83)	2.79	(0.89)	4.19	(0.73)	4.04	(0.75)	<0.001
Receiving help whenever necessary	4.62	(0.64)	4.00	(1.11)	4.66	(0.61)	4.68	(0.54)	0.009
Increased compliance	3.96	(0.80)	3.50	(0.94)	4.03	(0.82)	3.97	(0.75)	0.160

MR = Mechanistic relationship, AR = Authoritative relationship, FR = Facilitative relationship

Appendix 12 Means and SDs of sum variables and questions concerning contextual factors and consequences of the relationship for all patients and patients in three types of relationship (1/1)

	All patients (n=154-163)		Patients in MR (n=51-56)		Patients in AR (n=81-82)		Patients in FR (n=24-26)		P-value
	Mean	(SD)	Mean	(SD)	Mean	(SD)	Mean	(SD)	
Sum variables and questions concerning									
Student's personal and professional attributes	4.62	(0.49)	4.29	(0.61)	4.82	(0.25)	4.68	(0.44)	<0.001
Sense of humour	4.56	(0.72)	4.19	(0.94)	4.78	(0.45)	4.67	(0.57)	0.001
Empathy	4.70	(0.60)	4.41	(0.81)	4.88	(0.33)	4.77	(0.51)	<0.001
Ability to deal with patient feedback	4.53	(0.76)	4.20	(0.90)	4.73	(0.55)	4.58	(0.81)	<0.001
Ability to remain calm	4.83	(0.46)	4.63	(0.62)	4.94	(0.24)	4.88	(0.43)	<0.001
Recognizing the patient as an equal partner	4.80	(0.56)	4.56	(0.82)	4.96	(0.19)	4.81	(0.49)	0.001
Ability to answer patient's questions	4.20	(0.92)	3.71	(1.10)	4.53	(0.60)	4.16	(0.94)	<0.001
Ability to perform care-related activities with care	4.84	(0.40)	4.66	(0.55)	4.94	(0.24)	4.88	(0.33)	0.002
Ability to discuss issues in a natural, unforced manner	4.47	(0.91)	3.96	(1.13)	4.75	(0.62)	4.64	(0.76)	<0.001
Patient's attributes as a patient	3.93	(0.55)	3.72	(0.68)	4.06	(0.44)	3.97	(0.42)	0.001
Willingness to talk about one's own situation	4.25	(0.96)	3.70	(1.16)	4.51	(0.67)	4.60	(0.70)	<0.001
Sense of humour	4.27	(0.87)	3.96	(0.95)	4.43	(0.80)	4.44	(0.71)	0.088
Physical condition	3.53	(1.26)	3.38	(1.29)	3.73	(1.23)	3.24	(1.27)	0.168
Mood	4.21	(0.90)	4.00	(1.07)	4.35	(0.74)	4.20	(0.87)	0.154
Need for help with daily activities	3.36	(1.60)	3.13	(1.69)	3.38	(1.56)	3.80	(1.47)	0.592
Attitude to student	4.41	(0.87)	4.04	(1.15)	4.62	(0.62)	4.54	(0.51)	0.001
Attitude to student learning	3.46	(1.42)	3.38	(1.44)	3.46	(1.42)	3.65	(1.43)	0.864
Commitment to self-care	4.65	(0.73)	4.39	(0.91)	4.77	(0.62)	4.84	(0.37)	0.050
Atmosphere during collaboration	4.53	(0.53)	4.31	(0.66)	4.67	(0.38)	4.57	(0.43)	<0.001
Staff nurses' performance as role models	4.80	(0.50)	4.71	(0.62)	4.85	(0.42)	4.80	(0.41)	0.527
Staff nurses' attitudes towards students	4.75	(0.51)	4.69	(0.58)	4.83	(0.44)	4.64	(0.57)	0.239
Staff nurses' supportive supervision	4.60	(0.61)	4.45	(0.71)	4.69	(0.54)	4.68	(0.48)	0.129
Staff nurses' encouraging feedback	4.29	(0.83)	4.18	(0.92)	4.41	(0.74)	4.17	(0.87)	0.110
Privacy for student-patient interaction	4.19	(1.17)	3.49	(1.40)	4.55	(0.79)	4.58	(0.89)	<0.001
Student's personal and professional growth	4.18	(0.67)	3.93	(0.77)	4.33	(0.59)	4.25	(0.60)	0.003
Growth as human being	3.95	(0.90)	3.75	(0.91)	4.05	(0.89)	3.88	(0.90)	0.401
Growth as nurse	4.30	(0.81)	4.09	(0.85)	4.48	(0.74)	4.17	(0.82)	0.062
Learned to respect the patient as unique personality	4.42	(0.76)	4.11	(0.90)	4.59	(0.61)	4.54	(0.66)	0.015
Expanded knowledge base in patient illness and care	4.07	(0.94)	3.74	(1.03)	4.19	(0.84)	4.42	(0.83)	0.037
Student's increased confidence and self-esteem	4.40	(0.60)	4.17	(0.71)	4.55	(0.49)	4.41	(0.53)	0.002
Successful advocacy of what is best for the patient	4.45	(0.64)	4.28	(0.74)	4.56	(0.57)	4.50	(0.59)	0.092
Successful involvement in caring relationship with patient	4.37	(0.72)	4.06	(0.81)	4.55	(0.59)	4.46	(0.66)	0.005
Confidence to face new situations	4.36	(0.74)	4.20	(0.83)	4.46	(0.67)	4.35	(0.71)	0.152
Motivation to pursue nursing as a career	4.42	(0.80)	4.13	(0.93)	4.62	(0.64)	4.42	(0.78)	0.029
Patient's improved health and commitment to self-care	4.26	(0.76)	3.78	(0.91)	4.55	(0.43)	4.33	(0.72)	<0.001
Increased sense of health and well-being	4.39	(0.88)	3.95	(1.13)	4.69	(0.54)	4.39	(0.72)	0.001
Alleviation of tension	4.11	(1.00)	3.59	(1.14)	4.42	(0.76)	4.22	(0.95)	0.001
Increased knowledge about one's own care	3.74	(1.15)	3.13	(1.29)	4.19	(0.75)	3.57	(1.27)	<0.001
Receiving help whenever necessary	4.65	(0.73)	4.34	(1.00)	4.80	(0.46)	4.83	(0.57)	0.002
Increased compliance	4.35	(0.96)	3.85	(1.24)	4.67	(0.57)	4.37	(0.88)	<0.001

MR = Mechanistic relationship, AR = Authoritative relationship, FR = Facilitative relationship

2(6)

Appendix 13

Table 2 Principal component analysis of contextual factors related to types of student-patient relationship as perceived by students (n=192). Loadings above 0.30 presented.

Sum variables and questions concerning	Component			Total variance explained (%)
	1	2	3	
STUDENT'S PERSONAL AND PROFESSIONAL ATTRIBUTES (SA)				
Sense of humour	.698			
Empathy	.675			
Ability to deal with patient feedback	.660			
Ability to remain calm	.598			
Recognizing the patient as an equal partner	.490			
Ability to answer patient's questions	.419			
Ability to perform care-related activities with care	.514			
Ability to discuss issues in a natural, unforced manner	.577			
PATIENT'S ATTRIBUTES AS A PATIENT (PA)				
Willingness to talk about one's own situation	.359		.553	
Sense of humour	.381		.651	
Physical condition			.709	
Mood			.772	
Need for help with daily activities	.553		-.419	
Attitude to student			.328	
Attitude to student learning			.603	
Commitment to self-care				
ATMOSPHERE DURING COLLABORATION (AC)				
Staff nurses' performance as role models		.684		
Staff nurses' attitudes towards students		.834		
Staff nurses' supportive supervision		.860		
Staff nurses' encouraging feedback		.796		
Privacy for student-patient interaction		.436		
% of variance	24.4	11.1	8.3	43.8

Values in bold indicate the highest factor loading to each component

1(6)

Appendix 13 Results of principal component analysis (Rotation Varimax with Kaiser Normalization).

Table 1 Principal component analysis of the types of student-patient relationship as perceived by students (n=192). Loadings above 0.30 presented.

Sum variables and questions concerning	Component			Total variance explained (%)
	1	2	3	
MECHANISTIC RELATIONSHIP (MR)				
Focused on student learning	.365			
Externally directed by supervising nurse's actions	.485			
Student and patient do not know each other	.582			
Student's attention focused on technical performance			.322	
Negligible discussion between student and patient	-.408			
Student observes nurse's actions	.602			
Student imitates nurse's actions	.723			
Patient is passive object of nursing actions	.648			
Patient observes student's actions	.532			
AUTHORITATIVE RELATIONSHIP (AR)				
Focused on assumptions of what is best for the patient			.421	
Patient care decisions taken by student	.443		.300	
Student knows the patient as a patient with a certain disease			.385	
Conversation on care-related issues	.446		.458	
Conversation on everyday issues character	.337		.490	
Student helps patient to the best of her ability			.587	
Student provides daily care	.326		.550	
Student clarifies what is best for the patient			.352	
Student activates patient in self-care	.530		.510	
Patient asks student for advice	.323			
Patient agrees to student's suggestions				
FACILITATIVE RELATIONSHIP (FR)				
Focused on the common good of both student and patient			.460	
Directed by patient's wishes	.377		.309	
Student and patient know each other personally	.638			
Conversation on confidential matters	.660			
Conversation on patient's emotions	.628			
Student listens to the patient	.377			
Student acts as an advocate for patient	.657			
Student encourages patient	.422			
Patient is expert of own situation	.578			
Patient expresses opinions to student in care-related matters				
Patient provides information to student in matters related to disease	.570			
Patient gives advice to student	.551			
Patient gives feedback to student	.600			
% of variance	19.4	8.4	6.3	34.1

Values in bold indicate the highest factor loading to each component

Appendix 13

3(6)

Table 3 Principal component analysis of the consequences of the student-patient relationship as perceived by students (n=192). Loadings above 0.30 presented.

Sum variables and questions concerning	Component			Total variance explained (%)
	1	2	3	
STUDENT'S PERSONAL AND PROFESSIONAL GROWTH (SG)				
Growth as human being	.319		.646	
Growth as nurse			.776	
Learned to respect the patient as unique personality			.719	
Expanded knowledge base in patient illness and care			.578	
STUDENT'S INCREASED CONFIDENCE AND SELF-ESTEEM (SC)				
Successful advocacy of what is best for the patient	.819			
Successful involvement in caring relationship with patient	.623			
Confidence to face new situations	.610		.340	
Motivation to pursue nursing as a career	.671			
PATIENT'S IMPROVED HEALTH AND COMMITMENT TO SELF-CARE (PH)				
Increased sense of health and well-being	.461	.612		
Alleviation of tension	.357	.718		
Increased knowledge about one's own care		.685		
Receiving help whenever necessary		.616	.346	
Increased compliance		.662		
% of variance	32.3	12.4	10.3	55.0

Values in bold indicate the highest factor loading to each component

Appendix 13

4(6)

Table 4 Principal component analysis of the types of student-patient relationship as perceived by patients (n=166). Loadings above 0.30 presented.

Sum variables and questions concerning	Component			Total variance explained (%)
	1	2	3	
MECHANISTIC RELATIONSHIP (MR)				
Focused on student learning			.361	
Externally directed by supervising nurse's actions			.449	
Student and patient do not know each other	-.630			
Student's attention focused on technical performance	-.548		.350	
Negligible discussion between student and patient	-.660		.314	
Student observes nurse's actions			.334	
Student imitates nurse's actions			.569	
Patient is passive object of nursing actions			.471	
Patient observes student's actions			.331	
AUTHORITATIVE RELATIONSHIP (AR)				
Focused on assumptions of what is best for the patient	.353		.605	
Patient care decisions taken by student	.325		.441	
Student knows the patient as a patient with a certain disease			.614	
Conversation on care-related issues	.762			
Conversation on everyday issues character	.574			
Student helps patient to the best of her ability	.579			
Student provides daily care	.598		.310	
Student clarifies what is best for the patient	.749			
Student activates patient in self-care	.631			
Student asks student for advice	.661			
Patient agrees to student's suggestions	.558			
FACILITATIVE RELATIONSHIP (FR)				
Focused on the common good of both student and patient	.553			
Directed by patient's wishes	.463			
Student and patient know each other personally	.584			
Conversation on confidential matters	.577			
Conversation on patient's emotions	.526	.412		
Student listens to the patient	.682			
Student acts as an advocate for patient	.337	.373		
Student encourages patient	.728			
Patient is expert of own situation		.716		
Patient expresses opinions to student in care-related matters		.735		
Patient provides information to student in matters related to disease		.763		
Patient gives advice to student		.789		
Patient gives feedback to student		.693		
% of variance	26.3	8.4	8.0	42.7

Values in bold indicate the highest factor loading to each component

Table 5 Principal component analysis of contextual factors related to types of student-patient relationship as perceived by patients (n=166). Loadings above 0.30 presented.

Sum variables and questions concerning	Component			Total variance explained (%)
	1	2	3	
STUDENT'S PERSONAL AND PROFESSIONAL ATTRIBUTES (SA)				
Sense of humour	.667			
Empathy	.773			
Ability to deal with patient feedback	.745			
Ability to remain calm	.646			
Recognizing the patient as an equal partner	.625			
Ability to answer patient's questions	.514	.324		
Ability to perform care-related activities with care	.727			
Ability to discuss issues in a natural, unforced manner	.650			
PATIENT'S ATTRIBUTES AS A PATIENT (PA)				
Willingness to talk about one's own situation			.628	
Sense of humour			.742	
Physical condition		.411	.501	
Mood	.401		.696	
Need for help with daily activities	.302			
Attitude to student	.743			
Attitude to student learning			.337	
Commitment to self-care			.586	
ATMOSPHERE DURING COLLABORATION (AC)				
Staff nurses' performance as role models		.801		
Staff nurses' attitudes towards students		.752		
Staff nurses' supportive supervision		.735		
Staff nurses encouraging feedback		.708		
Privacy for student-patient interaction		.524		
% of variance	36.5	7.8	6.9	51.2
Values in bold indicate the highest factor loading to each component				

Table 6 Principal component analysis of the consequences of the student-patient relationship as perceived by patients (n=166). Loadings above 0.30 presented.

Sum variables and questions concerning	Component			Total variance explained (%)
	1	2	3	
STUDENT'S PERSONAL AND PROFESSIONAL GROWTH (SG)				
Growth as human being			.823	
Growth as nurse			.832	
Learned to respect the patient as unique personality	.370	.391		
Expanded knowledge base in patient illness and care	.333	.620		
STUDENT'S INCREASED CONFIDENCE AND SELF-ESTEEM (SC)				
Successful advocacy of what is best for the patient		.844		
Successful involvement in caring relationship with patient		.785		
Confidence to face new situations		.702	.305	
Motivation to pursue nursing as a career		.650	.305	
PATIENT'S IMPROVED HEALTH AND COMMITMENT TO SELF-CARE (PH)				
Increased sense of health and well-being	.874			
Alleviation of tension	.763		.423	
Increased knowledge about one's own care	.767			
Receiving help whenever necessary	.616			
Increased compliance	.719			
% of variance	50.5	10.2	7.1	67.8
Values in bold indicate the highest factor loading to each component				

Appendix 14 Cronbach alpha reliability coefficients of sum variables in SPR scales

Sum variables	Preliminary phase		Primary phase			
	Students n=33	Patients n=27	Students n=290	Patients n=242	Students n=192	Patients n=166
Mechanistic relationship	0.650	0.456	0.695	0.634	0.744	0.633
Authoritative relationship	0.567	0.861	0.635	0.850	0.649	0.831
Facilitative relationship	0.767	0.789	0.802	0.859	0.781	0.848
Student's personal and professional attributes	0.796	0.843	0.757	0.883	0.737	0.866
Patient's attributes as a patient	0.727	0.772	0.660	0.602	0.688	0.563
Atmosphere during collaboration	0.812	0.682	0.777	0.750	0.789	0.730
Student's personal and professional growth	0.868	0.872	0.689	0.797	0.706	0.799
Student's increased confidence and self-esteem	0.837	0.865	0.704	0.869	0.701	0.851
Patient's improved health and commitment to self-care	0.786	0.791	0.739	0.849	0.732	0.855

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