EXPERIENCING AUTHENTICITY

– The core of student learning in clinical practice

Katri Manninen

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Change is the end result of all true learning
— Leo Buscaglia

To my parents Ahti and Leena

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– The core of student learning

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By

Katri Manninen

R.N., MSc.

Principal Supervisor:
Associate Professor Charlotte Silén
Karolinska Institutet
Department of Learning, Informatics,
Management and Ethics
Unit of Medical Education

Co-supervisor(s):
Associate Professor
Elisabet Welin Henriksson
Karolinska Institutet
Department of Neurobiology,
Care Sciences and Society
Division of Nursing

Professor Max Scheja
Stockholm University
Department of Education

Opponent:
Professor Trudie Roberts
University of Leeds
Leeds Institute of Medical Education

Examination Board:
Associate Professor
Hans Jonsson
Karolinska Institutet
Department of Neurobiology,
Care Sciences and Society
Division of Occupational Therapy

Associate Professor Åsa Lindberg Sand
Lund University
Centre for Educational Development

Associate Professor Anna Vnuk
Flinders University
Department of Health Professional Education

Stockholm 2014

ABSTRACT

The present thesis explored student learning at a clinical education ward with an explicit pedagogical framework. Although nursing students were the focus of the studies the intention is to gain more generally understanding of student learning in clinical settings. Learning in this thesis is understood as a transformative process that involves knowledge construction and meaning-making processes. Clinical education is carried out in real clinical work-places and consists of encounters with patients, health-care professionals and peer students. Students train their future professional role in these encounters. Previous research has shown challenges that are tied to both organizational and pedagogical issues indicating that clinical learning environments are not always ideal. One way to meet these challenges is by introducing clinical education wards. These are units run collaboratively by educational institutions and the clinical settings; they train students on different levels and focus on inter-professional training or on one profession. The overall aim of the present thesis was to contribute to our understanding of students' learning at a clinical education ward where students are supported in taking care of patients independently. A qualitative approach was used to explore students' learning from the perspectives of students, patients and supervisors. The theory of transformative learning and the concepts of authenticity and threshold were used in interpreting and understanding of the findings. The results show that the core of student learning at a clinical education ward is the experience of both external and internal authenticity In *Study* I, first-year nursing students created mutual relationships with patients and expressed feelings of belongingness, which resulted in experiences of both external and internal authenticity. Experiencing authenticity resulted in learning and understanding of nursing and students' future professional role. In *Study* II, final-year students' learning turned out to be more complex; they experienced only external authenticity, with feelings of ambivalence and self-centredness creating uncertainty as a threshold for their learning. Taking care of patients in need of extensive nursing care helped students overcome the threshold and experience internal authenticity as well. *Study* III explored student-patient encounters and showed that mutual relationships resulted in learning relationships, where patients were active participants in student learning. In *Study* IV, supervisors' approaches to student learning were explored, and the supervisors' role was shown to involve balancing patient care and student learning by having a nursing care plan for patients and a learning plan for students. Supervisors allowed students to have independence while giving them adequate support at the same time. To conclude, authenticity makes learning meaningful, and students need to experience both external and internal authenticity in their learning process. Patients' active participation and supervisors giving both challenges and support are essential to students' learning. An explicit pedagogical framework based on patient-centredness, peer-learning and supervisors working as a team creates prerequisites for experiences of external and internal authenticity. The present thesis points out that creating possibilities for experiencing authenticity should be the basis for designing clinical learning environments.

LIST OF PUBLICATIONS

I. **Manninen, K.,** Welin Henriksson, E., Scheja M., Silén, C. (2013). Authenticity in learning - nursing students' experiences at a clinical education ward. *Health Education*, 113 (2), 132 - 143. DOI 10.1108/09654281311298812

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IV. **Manninen K.,** Welin Henriksson, E., Scheja, M., Silén, C. Supervisors' pedagogical role at a clinical education ward – an ethnographic study. Submitted.

CONTENTS

PREFACE

Learning is a complex phenomenon that can be explained and understood in different ways. Becoming a health-care professional is a transformation that involves acquisition of theoretical and practical knowledge and skills. This transformation would not be possible without encounters and interaction with teachers, supervisors, patients, peers, other professionals and other people outside the health-care world.

In 2005, I got the opportunity to become part of a team responsible for launching a clinical education ward for nursing students at the Department of Infectious Diseases at Karolinska University Hospital. The purpose was to create a learning environment, for nursing students on different levels, where they could practise their future profession. Students are allowed to act as nurses in a real but supported environment. As a supervisor and clinical lecturer, I have followed the students' learning and development from the chaos and insecurity that marks the first week to running the ward with support from the supervisors during the last week. As a nurse, I have listened to the patients' appreciative comments about how professional the students are and what good care they provide to the patients. I have also followed, as a colleague and a clinical lecturer, how the supervisors have supported the students through the clinical practice and how they themselves have developed during their time at the ward. My starting point and driving force for the thesis were these experiences and the need to really understand students' learning at a clinical education ward from these multiple perspectives.

It is a challenge to conduct research in a context you are part of and professionally involved in. It is an advantage to have knowledge about the context regarding the structures, organizations and people. This makes it possible not only to gain access in the research field, but also to grasp more deep the phenomenon you are interested in. However, there is a risk that prior knowledge and familiarity with this particular context will make you prone to overlook important aspects. Triangulation regarding both the research team and data collection is one way to respond to this challenge. Reflexivity as a researcher is of course crucial. Analysing my own assumptions and impact during the research process has been a main strategy; for me it is not possible to look into this context from the outside, but working with others, sharing perspectives with them and being open to new perspectives that may challenge my own understanding can help me articulate interpretations that I have taken for granted; this process of making explicit the basis for the research contributes to enhancing the understanding of the phenomenon under study.

OUTLINE OF THE THESIS

In the present thesis the focus is on student learning at a clinical education ward from the perspectives of students, both in the beginning and nearing the end of their education, patients and supervisors. In the background section, the concepts of learning and clinical education are described and discussed. How clinical education can be organized and performed is also presented as well is nursing education in Sweden, because the setting for the thesis is a clinical education ward for nursing students. The background section also includes previous research on student learning in clinical settings and, in order to help the reader to understand the context, a description of the clinical education ward that is the setting for the studies. The methodology and research design section describes the theoretical underpinnings and research process including the design, data collection and data analysis. The findings section presents the main findings of the four studies. In the discussion section, the findings are discussed in relation to previous research and theoretical concepts. Conclusions and implications for practice as well as future research are then presented, the hope being to inspire different stakeholders within clinical education.

BACKGROUND

The present thesis is about student learning in clinical settings. Although the focus of the research is nursing students, the intention is to understand more generally learning in clinical settings. The main focus of all health-care education is to contribute to patients' well-being and health. The different health-care professions have their own areas of expertise, and during the education the students acquire profession-specific knowledge and skills. One aspect that also varies is how the clinical education is organized. In undergraduate nursing education, students usually receive clinical placement in a specific ward where they work together with the staff, whereas other health-care students more often rotate through different wards during one placement. Despite these differences, there are aspects of learning in clinical settings, such as encounters with patients and applying theoretical knowledge and skills, that are common to all health-care profession students.

LEARNING

Learning is a complex phenomenon that can be understood and described from different perspectives. Understanding learning is about understanding not only learning processes, but also the conditions that influence and are influenced by the learning process (Illeris 2009). In the present thesis, learning in clinical settings, which can be seen as having inherent special characteristics and a particular type of complexity, is studied. Transformative learning as described by Mezirow (2009) offers a broad basis for understanding the complex learning in clinical settings and also enables linking this understanding to other theoretical frameworks and concepts. As a point of departure and basic framework, learning is understood here as a transformative process including active knowledge construction and meaning-making processes.

Transformative learning

Mezirow (2009) defines transformative learning as

> The process by which we transform problematic frames of references (mindsets, habits of mind, meaning perspectives) – sets of assumption and expectation – to make them more inclusive, discriminating, open, reflective and emotionally able to change. Such frames are better because they are more likely to generate beliefs and opinions that will prove more true or justified to guide action.
> Transformative learning theory is a metacognitive epistemology of evidential and dialogical reasoning. Reasoning is understood as a process of advancing and assessing a belief. Transformative learning is an adult dimension of reason assessment involving the validation and reformulation of meaning structures (Mezirow 2009 p.92-93).

Transformative learning involves both instrumental aspects, for instance task-orientated problem-solving, and communicative aspects. Communicative learning involves learning to understand what others mean in a communicative situation.

Feelings, intentions, values and moral issues are involved in communicative learning. Hence, transformative learning is a social process, where a new or revised interpretation of the meaning of experiences is constructed and internalized, thus guiding further actions. Transformative learning can be epochal, as a result of a significant event, or cumulative where progression of insights results in a change and transformation (Mezirow 2009).

Transformative learning as a social process involves reflection, and this is discussed further by Kaufman and Mann (2010) and Mezirow (2009). In line with transformative learning, students are encouraged to create, elaborate and transform their assumptions and expectations through reflection. This involves three types of reflection: content reflection, process reflection and premise reflection. These types of reflection involve examining the content or description of a problem, the strategies that are used to solve the problem and questioning the problem itself. The reflection process also involves self-reflection, including self-examination and critical assessment of assumptions. Reflection results in new knowledge and skills and a new course of action, with increased competence and self-confidence. Transformative learning as a social process refers to participation in a dialectical discourse. A transformative learning process is complex and emotional and involves a period of disorientation and resistance. Part of this process takes place outside of students' awareness which means that educators, such as teachers and supervisors, need to assist students in becoming aware of the meaning of this period in the learning process. Therefore, transformative learning requires an environment that provides support and feedback (ibid.).

Meaningful learning and knowledge construction

Motivation is essential to learning as a driving force based on interest, desire, necessity or compulsion (Illeris 2009). Biggs and Tang (2011) discuss four types of motivation. Motivation may be derived from intrinsic meaning based on students' own interest in gaining new knowledge and skills. Extrinsic motivation is about the outcome, perceived as a positive or negative experience. Motivation can also emanate from social relationships or achieving something by competing with others. The basis of motivation has consequences for learning approaches. Marton and Booth (1997) mean that surface approaches focus on memorizing and reproducing nuggets of information, whereas deep approaches involve an explicit intention to seek meaning and understanding for oneself, and seeing phenomena in a different way. Biggs and Tang (2011) link the surface approach to extrinsic motivation and the deep approach to intrinsic motivation.

Marton and Booth (1997) emphasize further that the driving force for learning is the relevance structure of the learning situation, where variation is in focus. This means that learning involves the student becoming capable of experiencing something in a different way. The experience of variation is related to the ability to distinguish and to be aware of different aspects of the phenomenon or the situation, which has also been

discussed by Fyrenius et al. (2007). Hence, learning is seeking meaning, which involves understanding, viewing things in a different way and as well as changing as a person (Marton and Booth, 1997).

Learning needs to make sense for the learner if it is to occur. Meaningful learning, according to Mayer (2002), is about knowledge construction by making sense of the experiences in an active cognitive process. This process involves using knowledge to solve problems and finding out how to proceed from the starting point to the finish line. It means acquiring information and processing it to generate a plan for solving the problem. Meaningful learning is about understanding, which means integrating existing and new knowledge through interpretation, explanation and comparison as well as by summarizing, applying, analysing, evaluating and creating. Accordingly, the meaning-making process goes beyond recognition and recalling. This is also emphasized in transformative learning (Mayer 2002; Mezirow 2009).

Illeris (2009) provides further insights into the complexities involved in meaning-making processes and knowledge construction. Learning is an external interaction process between the student and the environment and at the same time an internal psychological process. Both of these must be actively involved if learning is to take place. Moreover, these two processes include three dimensions. The first dimension of learning is about the content of what is learned, building up the understanding and capacity of the student. This content-focused dimension includes a requirement that the student construct meaning and the ability to deal with challenges and problems in order to develop overall personal functionality. The second dimension is the impetus that directs the feelings, emotions and motivation needed for learning; it creates a basis for mental balance, resulting in a personal sensitivity. The third dimension deals with interaction, which provides the stimuli, such as perception, transmission experience, imitation or participation, that initiate the learning. The student integrates with and becomes a part of communities and society (ibid).

Knowles et al. (2012) discuss learning from the perspective of adult learning, which aligns with both meaning-making processes and knowledge construction as described by Illeris (2009) and Mezirow (2009). According to Knowles et al. (2012) the core principle of adult learning is the need to know why, what and how. Students are seen as autonomous and self-directed due to their prior experiences of learning. These prior experiences are seen as resources that provide motivation and readiness to learn. Students' motivation to learn is intrinsic rather than extrinsic in nature. Furthermore, students are problem-centred and contextual in their orientation to learning. Goals and purposes are developmental outcomes and form the learning experiences in interaction with core principles. Understanding individual differences, including cognitive abilities, personality and prior knowledge, enables adjustment of different approaches and strategies for learning based on each individual's needs. Situational differences refer to social-cultural influences prior to the actual learning situation and the present context (ibid.).

Accordingly, knowledge is seen as a construction made by the student, not as an absolute external reality. This knowledge construction involves an active process through which the student constructs his/her understandings based on prior knowledge, perceptions and experiences. This process may be individual or collaborative (Mann et al. 2011)

In sum, transformative learning, described above based on Mezirow's theory and elaborated from different theoretical perspectives, is about making meaning out of experiences through a meta-process. This process can be considered as constructive-developmental, which means that not only do the meanings change, but also the forms by which they are made. Learning is about gaining new experiences and through a process of elaboration of and reflection on these experiences, transforming them into new knowledge and skills and into new courses of action in a social context. Consequently, transformative learning is not just a matter of knowing more, it is about knowing differently (Mezirow 2009; Kegan 2009).

LEARNING IN CLINICAL EDUCATION

Clinical education, seen from the perspective of students, involves encountering patients, health-care professionals and peer students in clinical settings. Learning in clinical education is about solving problems by integrating previous and new knowledge, experiences and skills in order to transform students' understanding and behaviour into professional competence. This aligns with transformative learning and meaning- making processes, as described above. For students this also involves training their future professional role by applying knowledge and practising skills in these encounters. Students' learning is supported by peer students, supervisors and other professionals working in the actual context (Mayer 2002; Kaufman and Mann 2010; Silén 2013). Other stakeholders involved in clinical education are educational institutions, health-care settings and patients. From an educational institution perspective, it is important that clinical education offer opportunities to apply and practise relevant knowledge and skills. From the perspective of health care, clinical education is about preparation for a future profession. From the patients' perspective it is about students being given opportunities to train in order to achieve the competencies needed. Students need to practise in real situations and with real patients (Mogensen et al. 2010).

Clinical education can be understood as work-based learning, meaning that the education is carried out in real clinical workplaces similar to those in which the students will work once they have graduated. The primary focus is on patient care, whereas the focus in the theoretical parts of education is on students' learning. Teunissen and Wilkinsson (2011) found that learning in a classroom is usually planned and explicit, while in workplaces it is more often opportunistic and not so explicitly related to patients' unpredictable needs.

Students' learning in clinical education can also be viewed from a socio-cultural perspective, which means that learning is tied to the context in which it happens and that learning occurs through participation in the activities (Wenger 2009; Morris and Blaney 2010). In the clinic, there are teams consisting of different health-care professionals with their own working cultures but sharing the same goal; caring for patients. The teams form communities of practice; they have special knowledge and skills that are needed within the actual context. Students usually move from peripheral participation towards full access and participation when it can be ensured that they have sufficient competence regarding both clinical skills and the ability to communicate using the specific terms and structure (ibid.).

In clinical education, the aim is to develop students' future professional role, which involves the interplay between theoretical knowledge and practical skills. The students need to be motivated, to be aware of and able to distinguish the different phenomenon and situations they experience as well as to make sense of their experiences (Illeris 2009; Marton and Booth 1997; Mayer 2002). Hence, it is not enough to acquire theoretical and clinical knowledge and skills, but even more important to process the knowledge and skills into one's own internalized knowledge, as in transformative learning (Mezirow 2009). This internalized knowledge appears in the individual's way of approaching and acting in different situations. The clinical reality is complex and unpredicted, and all the senses are involved in clinical education. Students need to experience thoughts, emotions and hands-on acting. They are affected, they react and they wish to understand and be able to handle the situations they are faced with (Silén 2013; Mogensen et al. 2010). Several studies have shown that students need support and guidance from supervisors and teachers in various ways. Supervisors help students to achieve their learning goals by motivating students, and identifying, explaining and reflecting on specific learning situations. Supervisors also give students feedback and acknowledgement (Silén 2013; Lilja Andersson and Edberg 2010).

Becoming a health-care professional requires continuous integration of theory and practice in a meaning-making process (Mayer 2002; Marton and Booth 1997; Knowles et al. 2012; Mezirow 2009). Knowledge and skills cannot be transferred passively from supervisors to students, and therefore students need to actively construct and build up their knowledge, including understanding, skills and attitudes (Mann et al. 2009; Silén 2013).

Clinical practice

For nursing students, clinical education takes place in various clinical settings, such as hospitals, centres for primary care and elderly care, throughout the programme. The length of clinical practice varies from shorter, one - to two-week period, to longer periods of several weeks. Students are usually placed at the same setting throughout the actual placement and are supervised by one or several professional nurses (Löfmark and Thorell-Ekstrand 2013; Warne et al. 2010). Clinical practice is meant to support students' learning, and according to the research in this area (Warne et al. 2010;

Johansson et al. 2010), this support consists of different parts. First, the atmosphere and the culture of the actual setting constitutes the basis of how clinical practice, including supervision, is organized. Second, the management and leadership of the setting constitute the premises for nursing, including facilities and resources for nursing and supervision. Third, the clinical lecturer, employed by the educational institution, provides support and guidance for both students and supervisors.

Previous research has shown that supervision may be organized in different ways. In recent years, a common method of supervising nursing students has been one-to-one supervision, which means that each student has a professional nurse as a personal supervisor. A group supervisor is a nurse who acts as supervisor for several students. Alternative ways to organize clinical practice are student-dyads, student-dedicated rooms and clinical education wards. Student-dyads are two students who work as a pair, and student-dedicated rooms involve two or more students working independently and assuming responsibility for one patient room. Clinical education wards are units that train a group of students either from one profession or inter-professionally (Jokelainen et al. 2011; Ruth-Sahd 2011; Staun et al. 2010; Bourgeois et al. 2011; Nash et al. 2009; Ranse and Grealish 2007; Pelling et al. 2011).

Management and leadership of the actual setting are important aspects, as they form the conditions for creating a learning environment that offers potential for students to achieve their learning outcomes, as discussed by Bourgeois et al. (2011) and Warne et al. (2010). From the ward management's point of view, it is essential that students become professionals who are able to manage an increasingly complex and demanding clinical reality. The ward management establishes the premises for organizing nursing care, supervising students and allocating resources. There is a connection between how work, including nursing care, is organized and a good learning environment. Thus, how the management views the value of educating students is an important factor. If students experience the actual setting as a good and positive learning environment, they may consider it as a future workplace. The organization of the learning environment may thus influence recruitment of future professionals (Warne et al. 2010; Bourgeois et al. 2011; McKown et al. 2011).

Clinical practice is a collaboration between the clinical workplace and the educational institution, and thus what happens in clinical training is not solely the responsibility of the actual ward. The collaboration is carried out on several levels, from informal agreements between the clinical settings and educational institutions to formal implementations at a practical level. Clinical lecturers are part of the implementation process. They focus on facilitating the integration of theory and practice and on coordination of student assessments. A clinical lecturer has pedagogical expertise and provides support to students, supervisors and the ward management (Warne et al. 2010; Staun et al. 2010).

Challenges in clinical education

As described above, an important part of the clinical education is to help students integrate theory and practice, which is the common goal for all health-care professions. However, there are several challenges to overcome, and these challenges are tied to both organizational and pedagogical issues. While organizational issues primarily deal with the learning environment, pedagogical issues deal with the selection and structuring of content and the implementation of clinical education.

Learning environments

Clinical education is carried out in various clinical settings, and the learning environments are not always ideal. Sedgwick and Harris (2012) suggest that one reason learning difficulties may arise is that the main focus of these settings is to provide patient care, while at the same time serving as educational settings. Although most clinicians sympathize with the need for students to practise their skills in a clinical setting, the secondary role of education may result in insufficient time being allotted to supervision. This lack of time for supervision means that there are limited opportunities for staff to provide feedback to students, which may create sources of friction in student learning (ibid.). Studies have also shown that other organizational aspects, such as shortage of staff, busy work load and budget issues, may be barriers to creating a good learning environment. Another important aspect concerns the secondary role of education, meaning that supervision of students needs to be legitimized as real work that requires real resources. Further, the content of supervision is not sufficiently explicit, and it has been shown that there is often a lack of structure in supervision. This means that there is a risk that clinical education will focus on simply carrying out procedures and receiving supervision in what and how to do them but not why they are necessary (Dilworth et al. 2013; Sedgwick and Harris 2013; Carlson et al. 2010a).

Supervisors, as professional role models who help students connect theoretical and practical knowledge and skills, are fundamental to the learning environment (Mayer 2002; Mezirow 2009). Supervisors have different ways of perceiving their role in students' learning and often use different supervision strategies and techniques (Carlson et al. 2009; Jokelainen et al. 2011). Brammer's (2006) study of nursing students reveals that when supervisors see students as future peers, they focus on supporting students in learning and understanding nursing and the role of a graduate nurse. However, if the supervisors' focus is on completing the workload the supervision will be focused on teaching how to perform nursing interventions and tasks and on controlling the students. One consequence of different supervising strategies and techniques is that students' learning may be very different even in same learning environment.

Students' perspective

From a student perspective, clinical education poses several challenges. It has been shown in previous research that students express a discrepancy between their own and supervisors' expectations concerning what students should learn. Supervisors expect students to already have organizational, social, clinical and nursing skills when they

enter clinical education. In turn, students expect to be able to apply research-based, patient-centred and holistic nursing care and to work in inter-professional teams. In actual fact, however, students encounter obstacles such as time pressure, work load, task-orientated supervision and poor role models. Accordingly, students often testify to experiencing difficulties in transforming their theoretical knowledge into action and also tend to perceive a substantial gap between their theoretical and clinical education (Lilja Andesson and Edberg 2010; Astin et al. 2005; Maben et al. 2006; Price 2009; O'Brien et al. 2008; Henderson 2002).

Another challenge has to do with students' experiences of loneliness in their learning. Rydlo (2010) found that the knowledge of caring and nursing that students acquire is poorly valued in clinical and in educational settings; thus they frame their knowledge through their own reflection on personal experiences. Another study (Solvoll and Heggen 2010) revealed that students' experiences of care are neglected both in clinical practice and at university. Clinical supervisors focus on solving practical problems, whereas university teachers focus on abstracting students experiences and connecting them to theories. This leads to an under-exploitation of the potential of learning through participation and dialogue about experiences of nursing and caring.

Students who are nearing graduation are in a transition process from student to graduate professional. Several studies focused on different health-care profession students have pointed out transition as a stressful process and it is not unusual for students to feel unprepared for their professional role. Transition may be difficult to cope with and students may perceive it as an overwhelming and intimidating process (Brennan et al. 2010; Dancza et al. 2013; Higgings et al. 2010). Previous research has stressed that students often express lack of support in different respects. The learning environment may be unsupportive, as discussed before, with a culture of unprofessional behaviour, task-orientation, unrealistic time constraints and poor supervision (McKenna and Green 2004; Newton and McKenna 2007; Ralph et al. 2009; Higgins et al. 2010). Kilminster et al. (2011) stress that learning, practice and performance are dependent on each other and therefore inseparable. It is not possible to be fully prepared for the transition process, and learning environments needs to acknowledge this. The individual student's knowledge, skills and performance are affected by the learning environment and will not remain stable in the transition process (ibid.). This description of the learning process accords well with the basic assumptions related to transformative learning (Mezirow 2009).

Patient involvement
Patients' involvement in students' education in clinical settings is essential and often taken for granted. Patients' involvement provides opportunities for students to practise clinical skills and behaviour. But patients can also provide students with valuable information as experts on their own illness or disability. Moreover, patients may be real patients or trained to teach and instruct students (Spencer and McKimm 2010).

Without the cooperation of patients, the health-care education system would not function well. Lowe et al. (2008) discuss whether patients are obliged to participate in student training. They argue that patients are expected to participate in the education of students, but that there is no clear-cut basis or rule for requiring their participation. Patients cooperate for altruistic and pragmatic reasons rather than through obligation; they want health-care professionals to have practiced various procedures under supervision and under controlled conditions. Lazarus (2007) studied patients' perceptions and underscores that professional behaviour and communication with the patient are important aspects of the patients' experience. Professional behaviour requires that students be able to identify the patient's needs, that they are knowledgeable and capable of carrying out the appropriate tasks. Communication with the patient requires that students be able to handle their own insecurity and make the patient feel safe and relaxed. In addition, it is important to the patient that students be aware of the limitations of their own professional competence (ibid.).

Several studies have shown that patients' experiences of their involvement are mainly positive and that helping students gives them satisfaction. Yet not all experiences are positive. Patients have concerns about students having access to their records and sometimes feel uncomfortable discussing personal matters with students. Patients also report negative experiences related to encountering uncertain or disinterested students. Another negative experience involves being excluded from communication between student and supervisor. This occurs, for instance, when the health-care professional gives curt answers to the patient's questions and when the patient does not understand what students and supervisors are talking about when they use medical terms (Spencer et al. 2000; Towle and Godolphin 2011; Debyser et al. 2011; Morgan and Jones 2009; Lauckner et al. 2012; Monrouxe et al. 2009). Jha et al. (2009) emphasize aspects that are of importance when considering patient involvement; these include short patient stays, lack of co-operation between student and patient, ethical considerations with severely ill patients and involvement of several professions in patient care. Further aspects concern the fact that students become less patient-centred as they near graduation (Tsimtsiou et al. 2007; Bombeke et al. 2010).

In sum, the future challenges in clinical education, discussed by Salminen et al. (2010) and Rich and Nugent (2010) and seen from the perspective of nursing education and from an international perspective, include the need to develop empowering learning environments. Such learning environments focus on organizing supervision and developing the roles of educators and staff. Patients' role and involvement in students' learning should be strengthened. The number of hospital-based clinical environments has been decreased, while the number of community health-care based clinical learning environments has increased. Another important aspect is to assure the preparedness of students when entering professional work. This calls for balancing theory and practice as well as using simulation in education (ibid.). These future challenges and the need for empowering learning environments concern all health-care students.

CLINICAL EDUCATION WARDS

Students' learning in clinical practice is strongly influenced by the environment and students' perceptions of how their learning is supported as described above. Moreover, there are several challenges for different stakeholders to address. Clinical education is supposed to be a joint activity of the educational institution and the clinical setting, but that is not always the case. Research (Dilworth et al. 2013; Sedgwick and Harris 2012) has shown that the situation sometimes instead reflects a discrepancy or a gap between the educational institutions and the clinical settings. The clinical environment is becoming more complex and ever-changing, which leads to the need to improve the quality of the clinical education. This quality improvement requires efforts of both educational institutions and clinical settings. Introducing clinical education wards may be one way to meet these challenges and to narrow the gap between theory and practice (Dapremont and Lee 2013; Mulready-Shick et al. 2009; Rance and Grealish, 2007; Glazer et al. 2011).

In recent years, different types of clinical education wards have been established. There is no unified concept used to describe these wards in the literature; sometimes they are also called *dedicated education units* and *training wards*. However, in the present thesis, the concept of *clinical education ward* will be used to describe a unit in health-care settings where the clinical education is carried out as collaboration between the educational institution and the clinical setting. McKown et al. (2011) mean that the aim is to enhance the integration of theory and practice, development of professional knowledge and the professional role as well as collaboration with peer students and other health-care professionals. The quality of patient care is of the utmost importance. Clinical education wards train students on different levels and focus either on inter-professional training or on one profession. Clinical education wards have been established worldwide in Europe, Australia, North-America and Japan (Moscato et al. 2007; Moscato et al. 2013; McKown et al. 2011; Brewer and Stewart-Wynne 2013; Lachmann 2013).

Clinical education wards have been shown to have the potential to enhance students' learning. Students tend to appreciate patient-centred learning and the possibility to practise their future profession as well as collaboration with peer students (Brewer and Stewart-Wynne 2013; Pelling et al. 2011). In their evaluation of clinical education wards, Mulready-Shick et al. (2013) found that the clinical education ward provides higher educational quality and more learning benefits than does traditional clinical education. McKown et al. (2011) also found positive effects on student learning. Placement at a clinical education ward helps students to achieve competencies in providing patient-safe and high-quality care. These two studies focused on the students' perspective. Hallin et al. (2011) investigated patients' perception of being cared for at a clinical education ward. Patients perceived that they were able to participate in their own care, they felt well-informed and their family

situation was taken into account when preparing for discharge. They found no evidence of disadvantages from the patients' point of view.

NURSING EDUCATION IN SWEDEN

Nursing is a practice-focused profession that includes both academic understanding and hands-on skills, as discussed by Segesten (2011). Nursing includes knowledge based on science and proven experience, but it also requires an ability to apply this knowledge by organizing, planning, prioritizing, acting and evaluating in real clinical settings. This means taking care of patients in complex and unpredicted situations in collaboration with other health-care professionals. Hence, nursing education is not only about *what* and *how* but also about *why* (ibid.).

In Sweden, the nursing degree programme is a three year- programme and leads to a Bachelor of Science in Nursing. This programme includes both theoretical and clinical education, for approximately half of the time being dedicated to each. The universities independently decide the specific content of the programme, but this is nationally regulated by the Higher Education Ordinance. The regulations for Swedish nursing education consist of academic requirements such as independence, responsibility, critical thinking, decision-making and ability to use research findings. Registered nurses are expected to have competencies in nursing science, medical science, in research, education, development and leadership. Registered nurses should also have a holistic approach characterized by an ethical stance and ethical principles while performing nursing care (SFS 1992:1434; SFS 1993:100; The National Board of Health and Welfare 2005; Kristofferzon et al. 2013).

The universities formulate their curricula based on the Higher Education Ordinance. They also plan the syllabi for specific courses, where the specific learning outcomes for each courses within the programme are stated. Öhlén et al. (2011) analysed the curricula and syllabi from all Swedish nursing degree programmes and concluded that the subjects for nursing education in Sweden are nursing science, caring science, medical science, social and behavioural sciences, ethics and philosophy and public health. Further, they found that some universities stated that the nursing programmes had a pedagogical profile including problem-based learning, process-orientated supervision and work-integrated learning. Others referred to their humanistic orientation, student-activating teaching methods, life-long learning, responsibility for personal learning and development, and learning as a dynamic process involving pedagogical values and directions (ibid.).

Nursing degree programmes involve theoretical and clinical education. Traditionally, the theoretical education consists of courses at the university and the clinical education refers to placements at different clinical settings. Clinical education also includes laboratory work, case studies, and field studies. However, there is a call for increased integration of these two parts. This integration can be achieved in different ways such as through clinical skills centres, clinical education wards, problem based-learning and

training through various types of simulation and e-learning (Segesten 2011; Silén 2013; Karlgren 2013; Öhlén et al. 2011).

Clinical education aims to promote integration of theoretical and practical knowledge and skills into a new entity, and it can be organized in different ways and in different types of clinical settings. Nursing involves different roles, such as medical-technical, administrative and caring. Nursing students are supposed to train these different roles by integrating theory and practice as well as to learn and develop their professional competence in clinical practice (Carlson et al. 2010b; Dahlborg-Lyckhage and Pilhammar-Andersson 2009).

A clinical education ward at Karolinska University Hospital

To provide an overview of the context of the present thesis, the setting is described below. The clinical education ward was established as an attempt to meet the challenges of nursing education by creating a learning environment where students train their future profession in a real but safe setting.

Organization
The clinical education ward at the Department of Infectious Diseases at Karolinska University Hospital is a unit with eight beds. It is open from Monday to Friday during the terms when students have their clinical practice. The ward trains nursing students on different levels and the average duration for clinical placement is six weeks. Fifteen students do their clinical practice simultaneously. Five supervisors work at the ward, four of them are nurses and one is an assistant nurse. A physician and a clinical lecturer also serve as supervisors. Other health-care professionals such as physiotherapist, dietician, occupational therapist and counsellor are also linked to the ward. Patients are admitted mainly from the emergency department or from the out-patient clinic. They are informed about how the ward is organized and assured that even though the students act independently, the supervisors will always guarantee patient-safety. When the ward closes on Friday, the patients who cannot be discharged are transferred to other wards at the department. The patients stay three to four days on average. During the night shift, a night nurse and an assistant nurse take care of patients. The ward admits patients throughout the day and night.

Pedagogical framework
The pedagogical framework of the clinical education ward is based on an interpretation of Mezirow's (2009) theory of transformative learning, and it is made explicit for all who are involved, including students, supervisors, physicians and other health-care professionals and the management of the ward and the department. This means that learning is seen as a meaning-making process, where students are actively involved and assume responsibility for their own learning. The pedagogical framework consists of three parts: patient-centred learning, supervisors' support and peer-learning, meaning that students take care of their own patients as independently as possible with support from their supervisors. They work both individually and in

pairs. The students are allowed to act as nurses by being responsible for planning, performing and following up the nursing care. Accordingly, they assist patients with activities in daily living, carry out vital controls, perform medical technical tasks such as taking the specimens, administering medicine and performing wound care as well as preparing patients for operation and examinations. Continuity is strived for, both for patients and for students, meaning that, whenever possible, the students follow their patients throughout their admission at the ward.

The supervisors support and help students throughout the shift, and they are responsible both for students' learning and for patient care. They are supposed to allow students to work on the frontline; they place themselves in the background but are ready to help their students when needed. All five supervisors supervise all students, meaning that the students do not have a personal supervisors. Although each supervisor is responsible for a group of five students with the regard to assessments. The supervisors hold a meeting every week where they discuss students' learning. At the end of each shift, there is a reflection session during which the students sum up the shift together with their supervisors. The supervisors also have a short reflection for themselves after every shift without the students being present. This reflection is focused on supervision and supervisor collaboration.

Peer-learning is about students working and learning together. Students take care of patients both individually and together with another student. They plan and organize the work together just as they would do at any ward. The students also discuss their patients, they reflect on nursing and medical issues and how such issues are linked. They are supposed to assist and guide each other when performing medical technical tasks and other tasks. They have a common goal, to run the ward together with support from supervisors.

Prior to the clinical practice there is an introductory day for the students. On this this day students receive information about the pedagogical framework and how it is implemented. They also have an opportunity to discuss their expectations and questions together with the clinical lecturer and supervisors. The students have two assessments during the placement. A half-time assessment is performed in the third week, and the final assessment in the final week of the placement. The responsible supervisor, student and clinical lecturer take part in the assessment, discussing the specific learning goals that are stated in the syllabus. If the student does not meet the criteria for the learning goals, an action plan is written. The plan consists of a description of the problem, what the student should do, what the supervisor should do and a follow-up plan.

A structure of a day at the ward
This section gives a brief description of a day at the ward with the aim of illustrating how the ward is organized and how the pedagogical framework is applied.
Eight students and three supervisors get together at seven o'clock in the morning and the night nurse gives an oral report about what happened during the night shift. After

that it is time to organize the day and decide which student will take care of which patient. The discussion is conducted by the students and the supervisors intervene if the students cannot reach consensus or if the supervisors need to adjust the workload or their plan due to pedagogical issues. Supervisors also decide who is responsible for which patient and student. During this meeting they also discuss other planned activities, for example meetings and educational activities that need to be considered by the students when they make the plan for the shift. The students plan for time slots in the medicine room and for other responsibilities at the ward, such as answering the telephone or who will take care of the next patient admitted to the ward. Then the students read about their patients, make their own plan for the shift and communicate the plan with the responsible supervisor. The supervisors have also read about the patients. When the students have made the preparations according to their plan, such as the medicines and the devices for taking the specimens, they go to their patients. They meet their patients, take vital controls and specimens and give them their medicine and breakfast.

At 9.30 a.m. it is time for the rounds. All students, supervisors and the physician get together, and all of the students get to present individually their patients and discuss with the physician. The students who are not presenting take part in the discussion in different ways. They might have additional information about the patient or ask questions regarding the medical conditions of the patients. After this session, the physician and the responsible student and supervisor visit their patients. The shift continues with student performing nursing care and other tasks. The students serve lunch to their patients and have their own lunch break. In the afternoon, they have time for documentation, administering medicine and following up care for the patients. They also hand over their patients to the students who will work the evening shift. At the end of the shift, the students get together with the supervisors to sum up the day: what happened and how they felt about it. After this recapitulation, the supervisors have a short discussion about the shift and how the students performed. Before anyone leaves the ward, they check with the evening shift students and supervisors to see whether they have any questions.

The evening shift starts at 1 p.m., and the procedure is the same as in the morning; the students decide who will take care of which patient. The evening supervisors are present and intervene if needed. Then the students and two supervisors read about their patients, and the students make their plan for the evening. The supervisors read about the patients and have a brief checkup with the physician. The students go in to their patients' rooms presenting themselves, taking vital controls if needed. They have a checkup with the students who worked the morning shift before they leave. After that, the students prepare for the medicine at 4 p.m. They continue the shift, performing nursing care and other tasks according to their plan. The night nurse comes at 9 p.m. and while she/he is reading about the patients the students and supervisors sum up the shift. Before the evening shift staff leave the ward the night nurse has an opportunity to ask questions.

RATIONALE FOR THE THESIS

Learning in clinical education is multifaceted and complex. The different perspectives of students, patients, clinical settings and educational institutions are supposed to be combined. The challenges emerge concerning the use of clinical environments as learning environments. From the students' perspective, the challenges are about how clinical education can support their learning, and from the patients' perspective challenges concern how they are involved in students' learning and how their care is affected by students. The clinical settings have to deal with combining and allocating resources to patient care and to educating students. The educational institutions are supposed to design and provide the students with opportunities to prepare themselves to face the clinical reality. To meet these challenges, different pedagogical efforts have been made, and one way to support students' learning in clinical practice is by employing clinical education wards. Different types of clinical education wards have been established, and studies have shown that students appreciate these kinds of learning environments. However, previous research on clinical education wards has mainly focused on evaluation from the students' perspective, and there is paucity of information on both patients' and supervisors' experiences.

In order to better understand whether and in what way clinical education wards can meet the challenges of clinical education, there is a need for deeper understanding of students' learning in these kinds of settings. There is a lack of knowledge about the influence of a clinical education ward with an explicit pedagogical framework on students' learning overall, and more specifically whether there are differences in learning when students are in the beginning and nearing the end of their education. A deeper understanding is needed, not only from students' perspective, but also from patients' and supervisors' perspectives and concerning supervisors' role in students' learning in this context.

This understanding and knowledge may be helpful when designing learning environments for health-care students, both regarding the content and the organization.

AIM OF THE THESIS

The overall aim of the present thesis is to contribute to our understanding of students' learning at a clinical education ward with an explicit pedagogical framework designed to enhance patient-centred learning. The target of inquiry is nursing students' learning, and an attempt is made to understand their learning from a student perspective and in relation to encounters with patients, as well as supervisors, peer students and other health-care professionals. To achieve the aim following research questions are posted:

- How do first-year students experience their learning?
  (*Study* I)

- How do final-year students experience their learning?
  (*Study* II)

- What occurs in patient-student interaction in their encounters, and how do patients and students experience their interaction and encounters?
  (*Study* III)

- What approaches do supervisors have to students' learning and how do they experience their role?
  (*Study* IV)

METHODOLOGY AND RESEARCH DESIGN

RESEARCH APPROACH

Qualitative research focuses on understanding and making sense of participants' experiences and perception, and it is conducted in natural settings. There are multiple, subjective realities, and the researcher is immersed in the setting, gathering data from different sources. In the present thesis, qualitative research was chosen to obtain a rich and varied picture of the phenomenon under study from multiple perspectives. Accordingly, the present qualitative research seeks to uncover multiple realities and takes a non-judgemental stance in relation to participants. The participants and the researcher interact with each other in different ways during the research process. Thus ethical aspects need to be considered and applied by the researcher throughout the process. The ethical aspects include treating participants with respect and dignity, obtaining informed consent and ensuring confidentiality. Moreover, the research process should follow the ethical principles for research involving human subjects (Creswell 2007; Savin-Baden and Howell Major 2013; Illing 2010).

The theoretical stance of the present study is based on a constructivist and interpretative tradition assuming a relativist ontology and a subjectivist epistemology, which means that there are multiple realities and participants construct meanings of their experiences in interaction with other people, including the researcher. Meaning construction is similar to meaning-making processes in learning (Mayer 2002). The researcher makes an interpretation of the meanings, and knowledge is co-constructed with the participants. The researcher's own experiences and prior knowledge form the basis of the interpretation. (Denzin and Lincoln 2008; Creswell 2007; Savin-Baden and Howell Major 2013). The research design situates the researcher in the empirical world, and research strategies connect the theoretical stance to the empirical work, involving strategies of inquiry and methods of collecting and interpreting data. Qualitative interpretations are a construction, in that the researcher makes sense of the findings and there is no single interpretative truth. Moreover, the interpretation is connected to the theoretical stance and to research strategy (Denzin and Lincoln 2008). Constructivism is about capturing different perspectives and paying attention to how language, which is a social and cultural construction, influences understanding and how relationships and power dynamics between the researcher and participant affect the findings. Furthermore strategies for data collection and interpretation are also of importance to the findings (Patton 2002).

In the present study, the phenomenon that is explored is student learning in clinical practice, and the aim is to contribute to a deeper understanding of student learning from different perspectives in a specific context: a clinical education ward. Previous research on student learning at clinical education wards has investigated students' perceptions after completed clinical practice using questionnaire surveys (Mulready-Shick et al. 2013; Pelling et al. 2011) and focus group interviews (Rance and Grealisch

2007). Lachmann et al. (2012; 2013) investigated students' experiences connected to learning activities during clinical practice. The overall approach in the present thesis is qualitative interpretative, which allows an exploration of the phenomenon in its natural settings and interpretation of its meaning for the participants (Denzin and Lincoln 2008; Creswell 2007). An ethnographic approach is used in *Study* III and *Study* IV to explore social interactions and behaviours (Hammersley and Atkinson 2007). While the qualitative interpretative approach related to interviews generates information about participants' experiences and conceptions of learning, an ethnographic approach using observations as well generates information about what actually happens in the setting under study.

The research questions in the present project are posed to explore student learning at a clinical education ward from different perspectives. In *Study* I and *Study* II the students' experiences were explored through individual and group interviews, which were analysed using interpretative content analysis (Hsiesh and Shannon 2005; Graneheim and Lundman 2004). The findings from *Study* I and *Study* II resulted in the need to explore interactions between students, patients and supervisors. Therefore an ethnographic approach was used for *Study* III and *Study* IV. Observations and interviews were also analysed using an ethnographic approach involving description, analysis and interpretation (Reeves et al. 2013; Hammersley and Atkinson 2007).

DESIGN

Students' experiences of their learning were explored in *Study* I and *Study* II using qualitative content analysis, and an ethnographic approach was used in *Study* III and *Study* IV to explore patients and supervisors perspectives on student's learning in. A summary of the methods of the four studies is presented in Table 1.

Table 1. An overview of the four studies. The results from the first study guided the next studies regarding the focus and methods of data collection and data analysis.

Study	Research focus	Participants	Data collection	Data analysis
I	First year students' experiences	19 first year nursing students	Semi-structured individual and group interviews	Qualitative content analysis
II	Final year students' experiences	18 final year nursing students	Semi-structured individual and group interviews	Qualitative content analysis
III	Patient-student encounters in relation to students' learning	10 patients 11 nursing students	Participant observations, individual follow-up interviews	Ethnographic approach involving description, analysis and interpretation
IV	Supervisors' approaches to students' learning	5 supervisors 10 patients 11 nursing students	Participant observations, individual follow-up interviews, group interview	Ethnographic approach involving description, analysis and interpretation

CONTEXT OF THE STUDIES

The context for the present project was a clinical education ward for nursing students at a department of infectious diseases at Karolinska University Hospital, Stockholm, Sweden, as described in the background section; please see pages 13-16. Students can be placed at the clinical education ward either at the beginning or at the end of their education. The overall aim is to train students, with support from supervisors, for their profession, and to practice teamwork and inter-professional collaboration.

PARTICIPANTS

Purposeful sampling was used as sampling strategy to increase variation in the data, meaning that the participants would be likely to provide rich and varied information (Savin-Baden and Howell Major 2013; Patton 2002). Students who were in different phases of their education and had completed their clinical practice at the ward were invited to participate. Patients who were admitted to the ward and had experience of being cared for by students and supervisors who worked at the ward were also invited to participate.

Study I

Twenty-eight nursing students in their second term completed their clinical practice at the ward during the spring term of 2009 and were invited to participate in the study. In all, 19 students participated, 16 female and three male with ranging in age from 19 to 38 years.

Study II

Twenty-nine nursing students in their fifth term completed their clinical practice at the ward during spring and autumn terms 2010 and were invited to participate in the study. Eighteen students agreed to participate, 17 female and one male with ranging in age from 21-39 years.

Study III

Ten participant observations were conducted for *Study* III and *Study* IV. Twenty-eight nursing students completed clinical practice at the ward during autumn term of 2012. Fourteen of the students were in their second year, third term, and 14 were in their final year, fifth term. All of the 28 students were informed about the aim of the study. Patients who were Swedish- or English-speaking and did not have dementia were identified as eligible participants. The eligible patients were contacted the day before the planned observations and informed about the study. All of the ten patients who were asked agreed to participate. The students who took care of these patients were also invited to participate. In all, 11 students, six in their final year and five in their second year, volunteered to participate. Six of these were female and five male, aged 21 to 36. As for the patients, there were six female and four male, aged 18 to 89.

Study IV

All five supervisors who worked at the ward during the autumn of 2012 were invited and agreed to participate. They were all female, aged 27- 45. Three of the supervisors had started at the ward during the actual term; two of them had worked more than one term. All of them had previous experience of acting as supervisors. Ten patients and eleven students, six in their final year and five in their second year, participated in the observations and were included as participants in *Study* III.

DATA COLLECTION

The data collection process was guided by the aim of the thesis, the research questions and, regarding the *Study* III and *Study* IV, results from the previous studies. For *Study* I and *Study* II data were collected through individual and group interviews. For *Study* III and *Study* IV, observations and interviews were used.

Interviews were chosen as the data collection method based on the overall objective: to explore students' experiences of learning. Interviews allow an interaction between the participant and the researcher where the participant shares her/his experiences, thus making it possible to acquire in-depth and broad information. When interviewing the researcher seeks to identify the meaning of utterances related to the context, with a focus on qualitative differences and nuances. The researcher makes an interpretation of these meanings while interviewing and probes to delve more deep into what has been said. The interaction between the participant and the researcher results in a knowledge construction (Kvale and Brinkmann 2009; Savin-Baden and Howell Major 2013). Both individual and group interviews were conducted to obtain varied and rich data. Individual interviews are intended to encourage participants to express their feelings and thoughts, whereas group interviews are intended to elicit different points of views that emerge during discussions between participants (Fontana and Frey 2008; Kvale and Brinkmann 2009).

While interviews generate data describing what the participants think about, perceive and experience, observations generate data about what takes place in the setting being observed. Observations aim to gain information about the interaction between participants and about the meaning of the physical environment in relation to the interaction. Observations are a part of ethnography, which also uses interviews in an attempt to add richness to the data by employing different sources of information to study the same phenomenon (data triangulation). In participant observations, the researcher is overt and takes part in activities, while still having a sense of separating him/herself from the participants. The reason for striving for data triangulation is to acquire comprehensive information about the phenomenon that is under study. Combining both interviews and observations yields different kinds of information about complex phenomenon, such as learning, which allows us to gain a deeper understanding of the phenomenon. (Fontana and Frey 2008; Reeves et al. 2013; Savin-Baden and Howell Major 2013; Hammersley and Atkinson 2007).

Study I

The focus of *Study* I was on exploring how students experienced their encounters with 1) patients, 2) supervisors, 3) peer students and 4) other health-care professionals at the clinical education ward using semi-structured interviews. An interview guide that included these four domains was used. Participants were asked to discuss and reflect on

how they perceived these encounters. The interviewer asked follow-up, probing and explanatory questions in order to obtain both in-depth and broad data. Seven individual and three group interviews were conducted. The group interviews included three, four and five participants. The interviews were audio-recorded, lasted 60-90 minutes and were transcribed verbatim. All interviews were conducted at the Department of Infectious Diseases, Karolinska University Hospital after the students had completed their clinical practice at the ward. The interviews were conducted between one and four weeks after their clinical practice, except for one interview that was conducted after four months.

Study II

The focus and data collection procedure for *Study* II were the same as for *Study* I. Eight individual and two group interviews were conducted. Each group interview included five participants. The audio-recorded interviews lasted 45-90 minutes and were transcribed verbatim. Also these interviews were conducted at the Department of Infectious Diseases, Karolinska University Hospital between one and four weeks after the students had completed their clinical practice at the ward.

Study III and Study IV

Ten participant observations including follow-up interviews were performed and were the basis for both *Study* III and *Study* IV. The focus of *Study* III was on exploring patient-student encounters at the ward. The focus of *Study* IV was on exploring supervisors' pedagogical role at the ward. The observer (KM) wore a nurse's uniform and followed one student taking care of one patient during a morning shift, except for one observation that involved two students. Moreover, supervisors were observed when they interacted with the students and patients. Extensive field notes including both observational and reflective notes were taken by the observer. The observational notes consisted of descriptions of activities and interactions during the observations, while the reflective notes consisted of the observer's thoughts and questions that occurred when observing. The field notes were transcribed immediately after each observation and discussed and reflected on with one member of the research team. After each observation, a follow-up interview was conducted by the observer with the patients, students and supervisors separately. The participants were asked to talk about what had happened that morning and their feelings about it. The follow-up interviews were audio-recorded, lasted between 4-20 minutes and were transcribed verbatim. For *Study* IV, a group interview with the supervisors was conducted by another member (CS) of the research team. The supervisors were asked to discuss their experiences as supervisors, what and how they perform when supervising, the interaction between students, patients and supervisors as well as their thoughts about students' learning. The audio-recorded group interview with the supervisors lasted 65 minutes and was transcribed verbatim. This interview was conducted after all students had finished their clinical practice for autumn of 2012.

METHODS OF ANALYSIS

All four studies were analysed using qualitative inductive analysis methods including qualitative content analysis for *Study* I and *Study* II and an ethnographic approach for *Study* III and *Study* IV. Creswell (2007) suggests that the process of qualitative analysis can be described as a spiral with analytical circles that are interrelated and between which the researcher moves back and forth rather than working linearly. The analytical circles consist of organizing, reading, memoing, describing, classifying, interpreting and representing the data. The analytic procedure is guided by the research questions and the spiral involves braking the data in meaningful parts so as to be able to examine them. Moreover, data analysis means making sense of the data by seeing, identifying, discovering, developing and interpreting them, and doing so with the purpose of communicating findings to others (Savin-Baden and Howell Major 2013).

In *Study* I and *Study* II, qualitative content analysis was used to analyse the data collected in the interviews. Qualitative content analysis can be defined as a method for interpreting the content of text data through an iterative, systematic coding process and by identifying themes. In qualitative content analysis, the focus may be on either the manifest or the latent content of the data (Hsiesh and Shannon 2005; Sandelowski 2000; Graneheim and Lundman 2004; Krippendorff 2004; Elo and Kyngäs 2008). In *Study* I and *Study* II data were analysed with an emphasis on the participants' experiences of learning at the clinical education ward. The data were generated from interviews and hence the qualitative content analysis relates even to Watzlawick et al.'s (2011) communication theory, which suggests that the manifest content deals with what was said in the interviews and the latent content, in turn, deals with the underlying meanings (Graneheim and Lundman, 2004). The focus in both studies was on the latent content. The analysis consisted of several steps in both *Study* I and *Study* II, moving back and forth in the different steps. The steps are presented separately for *Study* I and *Study* II, as follows:

Study I: First the transcripts were read and re-read several times to identify the meaning units and to sort them into the four domains foregrounded in the interview guide. Then the text was condensed and coded. The codes were created in relations to different events and phenomena. This coding was subsequently discussed with two members of the research group until consensus was reached. The analysis proceeded by analysing the codes and abstracting them into 13 sub-categories and six main categories describing the manifest content of the data, which is what was said in the interviews. In the next step, the sub-categories and main categories were analysed and interpreted resulting in five sub-themes and two main themes. The themes are an expression of the latent, underlying content of the data. The categories and themes were discussed within the entire research group to reach consensus and checked against the interviews to ensure that they corresponded to the data.

Study II: The process was similar with the different steps in the *Study* I and began with reading and re-reading the interviews and sorting them into the four domains from the interview guide. Condensing and coding resulted in 11 sub-categories and four main categories describing the manifest content of the data. The subsequent analysis and interpretation resulted in four sub-themes and two main themes expressing the latent, interpreted meaning of what was said. Also these analysis steps were discussed within the research group and checked with the interviews throughout the analysis process.

In *Study* III and *Study* IV, the analysis followed an ethnographic approach, which is an iterative process involving three aspects: description, analysis and interpretation. This means describing and examining the relationships and linkages between the data that have been collected from different sources, such as observations and interviews. The next step involves building up, through interpretation, an understanding of the data that goes beyond the description. To describe the actions and interactions and to transform the observations and interactions into a text, narratives are often created in an ethnographic approach. Narratives offer a possibility to present a comprehensive reasoning and meaning of how participants act and react (Hammersley and Atkinson 2007; Reeves et al. 2013).

Study III and *Study* IV are based on data from the same data collection, and the initial analysis process was the same. The focus of *Study* III was on exploring patient student encounters in relation to students' learning. In *Study* IV the focus was on exploring supervisors' experiences of and approaches to students' learning. First the transcripts from the field notes and interviews were read and re-read several times. Then events that included interaction between patients and students and interaction between patients, students and supervisors were identified. The identified events were observed by the observer and talked about by patients, students and supervisors. This was part of the triangulation process: to get a picture from all participants of the events that were observed. From this point, the steps of the analysis are described separately below.

Study III: From the set of observations, with events that described the interaction between patients and students and that were talked about by patients and students, four observations were selected for further analysis. These four observations consisted of various events that were both planned and unexpected such as taking vital controls and assisting patients with different activities. In these four observations, two of the students were in their second year and two in their final year. In the next step, positive and negative learning situations were identified. Positive learning situations implied an expression of positive feelings about what happened by both patient and student. Whereas in negative learning situations, they expressed negative or not particularly positive feelings about what happened. Then the analysis proceeded by looking for different characteristics of these situations. In the next step, the characteristics were further interpreted resulting in two narratives consisting of themes that describe patient-student encounters in relation to students' learning. The themes were compared to all ten observations to ensure that the themes corresponded to the data. The research group

has been involved in the different steps and discussed the analysis until agreement was reached.

Study IV: From the set of observations and both individual and group interviews, the events that included interactions between supervisors and students or supervising acts were identified. These events were sorted into three groups: 1) supervising situations, 2) what supervisors do (from the observations) and 3) what supervisors, students and patients talk about (from the interviews). Supervising situations include, for example, *planning for the nursing care* and *performing medical-technical procedures*. Examples of what participants talk about are trusting the student and communication (supervisors); feelings of security and assistance when needed (students); high standards and discovering mistakes early (patients). These three groups were then analysed further by looking for the important aspects for students' learning and identifying what the supervisors' challenges were. This analysis generated five categories that were subjected to interpretation, resulting in four themes. The themes were included in narratives describing the supervisors' pedagogical role at a clinical education ward. During the analysis processes the different steps have been discussed and reflected on by the entire research group until agreement was reached.

TRUSTWORTHINESS

There are a range of criteria that can be used when ensuring the quality of the research as well as the findings. Describing not only the criteria, but also the strategies used to ensure quality is an important part of making the research process transparent and enabling an evaluation of it. This description may be made using different concepts that can be seen as core quality concepts for qualitative studies, such as truth value, trustworthiness, relevance and rigour, and it is the researcher who decides which concepts to use (Savin-Baden and Howell Major 2013).

In the present thesis quality is discussed using the concept of trustworthiness which consists of concepts of credibility, dependability, transferability and reflexivity. All these concepts have been considered and discussed within the research group continuously at the different stages throughout the research process. Trustworthiness refers to the fact that the evaluation should be carried out in relation to the procedures that are used to generate the findings, whereas credibility deals with the whole research process and whether the appropriate methodology was used. Dependability concerns the consistency of the data, and transferability deals with whether the findings can be transferred to other contexts. Reflexivity refers to a process whereby the researcher critically reflects on her or his own position and influence on the research process (Hammersley and Atkinson 2007; Graneheim and Lundman 2004; Savin-Baden and Howell Major 2013; Kuper et al. 2008).

Credibility

Credibility is a matter of choosing the most suitable sample, and in this project it meant participants who had experience of a clinical education ward as students, patients and supervisors. They were considered to have information about the phenomenon that was under study, and they also represented different experiences and perspectives. Credibility is also about capturing the multiple realities of the participants. As a researcher I have asked whether I will understand and reconstruct the subjective reality of the participants. I believe that by conducting the interviews and observations and by being in the situations together with the participants, I came close to them and was able to grasp their reality. In the interviews the participants were allowed to express their experiences, and through observations I had the opportunity to observe the interactions and relationships and get a sense of the atmosphere and context as a whole. Collecting data from multiple perspectives and sources resulted in a rich description to analyse. In the analysis process, credibility was sought by selecting meaning units that consisted of enough information to analyse, but that were neither too extensive nor too fragmented. This meant that data from interviews were sorted into domains derived from the interview guide. The data from the observations were sorted into domains mapping onto the research questions. Moreover, presenting the findings in the articles using quotes was done to enhance credibility - to show that the findings covered the range of variation found in the data (Dahlgren et al. 2007; Patton 2002; Graneheim and Lundman 2004).

Dependability

Dependability is about the consistency of data collection and analysis. In the present project data collection was an evolving process, meaning that each interview and observation were to be somehow different, although they were guided by the same research questions. Thus, new insights during the data collection process might have narrowed the focus of the interviews and observations that were conducted in the later stages of the data collection. This is something I needed to be aware of, and for that reason I had the research questions as a starting point for each interview and observation. Further, writing reflective notes during the observations and discussing them with other members of the research group created an audit trail for the other members to follow. Hence, describing the different steps of the analysis may enhance dependability by allowing others to judge the soundness of the research (Graneheim and Lundman 2004; Dahlgren et al. 2007).

Transferability

Transferability refers to the extent to which the results of the research project are applicable to other contexts. Qualitative research is dependent on the context in which the study is conducted, but the results can be used to understand a similar phenomenon in other settings (Larsson 2009; Granheim and Lundman 2004). In the present project, giving a detailed description of the context provided a picture of how the clinical education ward is organized regarding both patient care and student learning, and especially of how these two aspects are linked together. Describing the methodology and presenting the findings in the articles using quotes also makes it possible to understand the present results in other contexts as well. To further enhance transferability and applicability, the results were related to the theory of transformative learning (Mezirow 2009) and concepts of authenticity (McCune 2009; Kreber 2010a) and threshold (Clouder 2005; Meyer and Land 2005; Land et al. 2014) as well as to previous research in the area.

Reflexivity

Reflexivity is a process whereby the researcher critically reflects on and considers his/her own position in and influence on the research project. It is intended to facilitate the researcher's understanding of being both integral to and integrated into the research. This means that it is not possible to remain outside the world or context that is being studied, but instead the researcher becomes a part of it. The research that is conducted has basic characteristics: interpretation and reflection that are based on theoretical assumptions. Reflexivity is shown when the researcher has a logical and systematic way of conducting the research and explaining the theoretical framework as well as the steps in the research process (Alvesson and Sköldberg 1994; Savin-Baden and Howell Major 2013).

Reflection on my own positioning involves my professional background as a nurse and as a clinical lecture, both of which have influenced me in different ways. Because I have experience of both taking care of patients and supervising students, I have experienced many of the problems discussed in the background section. I have also been part of the team that has done an intervention regarding the students' clinical practice. However, the aspiration that has driven me into the world of research is the need to understand more about students' learning in this context, about what and how students learn when they are offered a pedagogical framework. Moreover, my intention has been to gain knowledge that goes beyond the obvious and visible, such as the results from the student and patient enquires. This has influenced my choice of methodology. Qualitative research methodology and methods offer a possibility to gain a deeper understanding of students' learning processes. The fact that I have been working part-time at the ward has given me access to the field which I have conducted my research. The students and supervisors knew my background and this might have

made it easier to recruit prospective participants. However, during the data collection process, I did not take any part in assessing the students. I have also made great efforts to assure prospective participants of the voluntary and confidential nature of the research as well as to give them information about the aim of the research and the research process. In the interview and observation situations, my professional background has been an advantage because I had knowledge and an understanding of what to look for and ask about. The familiarity with the context might also resulted in taking things for granted and affected the depth of probing concerning these things. To avoid this, the interview guide consisted of broad questions, and the purpose was to obtain material that was as rich as possible; moreover, another research group member conducted the group interview with the supervisors. Further, I strived to make a thick description of the observations including reflective notes. In the observational notes I wrote a description of the actual situation: who was there, what they were doing, how they expressed themselves, including both verbal and non-verbal communication as well as a description of the environment. The reflective notes included the thoughts and questions that occurred to me while I was observing. Another important issue related to reflexivity was that the other members of the research group did not have contact with the ward and that their backgrounds were different from mine. This enabled me to bring other perspectives into the analysis process. The researcher triangulation was aimed at broadening the entire research process. To enhance reflexivity, discussions and reflections within the research group were carried out, and they continuously challenged my pre-understandings and caused me to explicitly express my interpretations and what I based them on (Hammersley and Atkinson 2007; Kuper et al. 2008; Savin-Baden and Howell Major 2013).

ETHICAL CONSIDERATIONS

In the present research project, ethical aspects have been considered in different ways throughout the research process. To start with, the ethical aspects were discussed within the research group in the planning phase of the entire research project as well as when conducting all four studies. This means that ethical aspects were involved at all stages, not only when applying for ethical approval. Accordingly, the project has been carried out in accordance with the Declaration of Helsinki (World Medical Association Declaration of Helsinki. Ethical Principles for Medical Research Involving Human Subjects, 1964). The project has been approved in two steps by The Regional Ethical Review Board. In the first application, a plan was made for all four studies and approved by the board. However, after *Study* I and *Study* II had been conducted, we discussed in the research group the need to change the methods of data collection for *Study* III and *Study* IV. A new application was thus put together and with a revised methodological strategy, and it was subsequently approved by the board.

Information to participants is a fundamental ethical aspect. The prospective participants were informed both orally and in writing about the purpose of the study as well as about the methods of data collection and analysis. The information concluded by stating that participation was voluntary and that the study would not affect their studies (for the students), the care (for the patients) or their work (for the supervisors). The participants were also assured that they could withdraw from the study at any time without any questions asked. They were informed about the confidentiality of the gathered data. Prior to all interviews and observations, informed written consent was obtained from the participants. Another important aspect when giving information was that prospective participants were given time to think about participation before they accepted or declined.

Regarding *Study* III, we discussed, within the research group, the patients' vulnerability. We decided that only patients who were able to communicate verbally and did not have dementia would be asked to participate, as it was important that patients be able to understand the information about the study. Although including patients who could not communicate verbally would probably have generated different and additional data, we considered it not to be advisable considering the current ethical approval. We also decided not to video-record the observations out of respect for the integrity of both patients and students.

Another important aspect to consider is that I, as a researcher, worked at the ward during the process of data collection. This might have impacted the participants' decision on whether or not to participate. I informed prospective participants carefully about the voluntary nature of the study so they would not feel obligated to participate. Regarding what the participants said during the interviews and their behaviour during the observations, these might also have been affected. In turn, my understanding of the context has facilitated me in understanding what the participants have said and how

they have acted and also helped probe their experiences while interviewing. During the data collection, I made a great effort to ensure the participants that I was interested in their experiences as such, and that the purpose was not to evaluate their performance. The students were also informed that I was not involved in their assessment while conducting the interviews and observations. I also assured the participants that no individuals would be identified in the data analysis. However, it is always the participants' choice what they say or do not to say and how they act.

FINDINGS

In the present thesis, the overall aim of the four studies was to explore students' learning at a clinical education ward from the perspectives of students, patients and supervisors. In *Study* I and *Study* II first- and final-year nursing students' experiences of learning at a clinical education ward were explored. Guided by the results from these two studies, *Study* III explored patient-student encounters and students' learning. In *Study* IV the focus was on investigating supervisors' approaches and pedagogical role at a clinical education ward. An overview of the findings is presented at the end of this chapter (Figure 1).

STUDY I

In this study, 19 first-year nursing students were interviewed, the purpose being to explore and understand their experiences of learning at a clinical education ward. Both individual and group interviews were conducted, focusing on how students experienced their encounters with patients, supervisors, peer students and other professionals. The analysis resulted in two main themes describing students' experiences of their learning at a clinical education ward: *mutual relationships* and *belongingness*. The mutual relationships between students and patients constitute the basis for students' learning. Belongingness means that the students experience being actually part of a team that takes care of the patients.

Mutual relationship between the student and the patient
Students create their own relationships with patients by meeting them independently, not through their supervisors. The relationships become a basis for students' learning and give insight into their own learning. This insight is described by the students as a journey from not knowing to understanding. The students are affected and challenged by their encounters with patients, and they become involved in their patients and their patients' conditions. The relationships develop further by listening and communicating with patients and the students wish to understand patients' personalities and care needs.

The students focus on patients' well-being from a holistic perspective including, physical, psychological, psychosocial and environmental aspects. The students do not wish to harm their patients in any way. In these relationships, students learn about and train the balance between closeness and distance to patients. They express concerns about not wanting to get too close or become too personal, nor help the patients too much. The students aim to involve the patients in nursing care by identifying patients' own resources and encouraging them to use these resources. Sometimes students fail, but the failures are seen as an experience to learn from. Students also express feelings of uncertainty and frustration because they feel that they do not have sufficient knowledge. They gain insights into the importance of being exposed to and handling difficult feelings and situations. The students handle these feelings and reactions by

focusing on patient care, on what should be done, and why and how it can be done in the best way.

The students perceive that their patients trust them and that patients are engaged in students' learning and give them continuous feedback. In relationships with patients, students become aware of the power they have, but they want to use it for the good of their patients. They aim to create a relationship in which the patient feels satisfied and safe.

Belongingness
The students' experience of belongingness is about feeling that they are a part of the professional team that takes care of the patients. Belongingness also means that the students feel trusted, not only by the patients, but even by supervisors and other professionals. The sense of belonging involves both working independently and collaboratively and focusing on the patients. The team of supervisors allows, encourages and supports the students in taking care of their patients independently.

Students experience the supervisors as professional, experienced, stable and safe individuals who focus on students' learning. They perceive that supervisors trust the students' ability to take care of patients. The supervisors possess a different kind of knowledge and they help students to find solutions rather than giving them straight answers. However, the students feel confident about supervisors always being there for them if needed. In the beginning of the clinical practice, students express feelings of confusion and chaos. They are responsible for real patients in real circumstances. Being in these real situations and thinking and acting as nurses help students understand and learn the role of the nurse as well as the nursing process.

Collaboration with peer students involves working together efficiently, discussing patient care, sharing experiences, giving support, providing information and demonstrating various things. This collaboration provides an opportunity for learning together and from each other. The students also gain experience in being more assertive and handling conflicts, but avoiding conflicts in front of patients.

Towards the end of the clinical practice, the students feel that they are running the ward. They perceive themselves as colleagues working together for the patients. They express the feeling of being experts on nursing care, which involves the important duty of emphasizing the patient perspective. Mutual relationships and belongingness created at the clinical education ward are prerequisites for experiencing of external and internal authenticity, which results in learning about and understanding nursing.

STUDY II

In this study the design was the same as in *Study* I but the focus was on exploring students who were nearing the end of their education. Accordingly, 18 final-year nursing students were interviewed, purpose being to explore and understand their experiences of learning at a clinical education ward. Both individual and group interviews were conducted focusing on how students experienced their encounters with patients, supervisors, peer students and other professionals. In this study as well, the analysis resulted in two main themes: *uncertainty as a threshold* and *experiencing engagement*. Uncertainty as a threshold is characterized by self-centredness and ambivalence, meaning that students show little interest in patients. Experiencing engagement involves creating a mutual relationship with the patient as well as professional development.

Uncertainty as a threshold

Uncertainty is expressed in different ways related to the student role and how the supervision is organized. *Self-centredness* and *ambivalence* are the salient expressions for the feeling of uncertainty in students' relationships. In their relationships with patients and peer students, they show self-absorption and distance. Students focus on carrying out different tasks and handling the fact that there is a group of students at the ward. Relationships with supervisors are marked by dependency and ambivalence.

Self-centredness

The most significant features of the students' self-centredness are that students see the patient as an object and their learning is directed at what they needed to do as nurses. Self-centredness seems to emanate from a wish and intention to learn everything a nurse might be expected to master. Students emphasize that being responsible for just a few patients may jeopardize their own development and when encountering patients they have a role that focuses on carrying out the appropriate tasks.

Patients are described from the perspective of different tasks. Uncertainty and self-centredness are also shown in discussions about severely ill patients. Students' interest in patients depend on severity of diseases and whether there are medical-technical tasks to carry out. The students express that being a professional means focusing on what can be done at the ward for the patient and also making demands on the patient. Students underscore that it is unprofessional to be too kind and soft. Students also describe difficulties feeling empathy for patients who display poor compliance with the treatment. If a patient has a complex medical condition or the students feel they have become too close to the patient, they might choose not to take care of that patient.

Students also expressed that the supervisors are responsible for providing sufficient learning opportunities and for guiding students through the work that has to be done. Yet they do not communicate this feeling of uncertainty to supervisors. On the one

hand, students expect supervisors to understand their feelings, on the other hand, they do not want to reveal their feelings of helplessness to their supervisors.

Ambivalence

In their relationships with supervisors, students want to be independent, while at the same time wanting to be given instructions. Students perceive the supervisors as instructors and models to follow. They are supposed to give students a structure for the shift, to teach and instruct. Students felt that the supervisors are supposed to be a resource for them, but they are not available when needed. Students are willing to show their competence and ability to manage by themselves. At the same time, they feel that they needed help and support. Students are afraid of hurting patients and failing. They do not dare take risks, although they feel they have the ability to do what was needed. Students long for feedback from supervisors, but they express that either they do not get feedback or they do not bother to ask for it. Both circumstances results in the students not knowing whether they have performed correctly.

At the same time, the students describe having a team of competent and interested supervisors who know their needs. The team of supervisors allows the students to be independent, encourages them to assume responsibility and reflects on what they are doing. They help students manage situations rather than taking over and doing everything themselves. The students perceive that the supervisors see the whole rather than details, and they feel safe having several supervisors.

Ambivalence also describes students' relationships with their peers. Students expressed that it is positive to work together with peer students, but there are too many of them at the ward at the same time creating confusion and obstacles to their learning. Relationships with peer students are described as beneficial but also competitive. On the one hand, there are many students at the ward, creating more time for the patients and opportunities for collaboration. On the other, students experience competition in medical-technical tasks and the divided attention of the supervisors result in feelings of not getting enough supervision. Having students at different level at the ward simultaneously is experienced as a hindrance. Students describe that they have to repeat tasks they already can do and the focus is on the basics of nursing and caring, thus adapted to needs of the lower-level students. The final-year students feel that they have other needs and want advanced learning, not the basics.

Experiencing engagement

Uncertainty appears to constitute a threshold for engagement concerning patients as subjects. The students who manage to overcome this threshold focus on patients and come to learn how nursing can affect patients' condition and well-being. The students experience engagement when taking care of a patient with an extensive need for nursing interventions. In these situations, they *create mutual relationships* with the patients and experience *professional development* and learning through patients, by doing things on their own and through collaboration with other professionals.

Creating mutual relationship

The students create a relationship with the patient when they experience the patient as a subject. Students describe how patients who need extensive nursing interventions help them to create a mutual relationship with the patient. They stay and communicate with the patients, observe changes and follow the patients throughout their stay at the ward. They felt they have to make their patients feel safe. The students express that, through these relationships they learn nursing and they come to understand that nursing makes a difference for patients. Students are acknowledged when they see changes and improvements in patients' well-being. Students describe that patients have different needs. Some patients need distinct information and they want everything to be handled quickly and effectively, whereas others express a need for students' presence, not just carrying out tasks. Students experience understanding and supportive feedback directly from patients.

Professional development

Professional development means understanding the complex reality, approaching the wholeness of nursing care and being able to collaborate with other professionals. Students mean that they learn by performing independently with support. They are allowed to train independently and find a pattern that works for them. There is a plan for their development and they feel needed at the ward. Students express how they, towards the end of the placement, reached a level on which they can see what needs to be done and feel confident enough to handle different situations. Gaining more independence and recognizing situations, they learn how to link together their previous experiences and knowledge to form a new whole.

Collaboration with other professionals mainly mean collaboration with physicians at the ward. Students learn how they could work together for the patients. At the rounds, students learn how nursing and medicine make a whole. This collaboration was about learning each other's tasks and collaboration was needed in planning for and following-up the patients. In this collaboration, students felt that their tasks were to prepare the patient, to listen, to remember and to carry out the agreed-upon interventions. The students express that other professionals came from outside and saw other needs.

When final-year nursing students, practicing at a clinical education ward, focus on patients, they overcome feeling of uncertainty and the threshold for engagement in patient care, resulting in understanding the complexity of nursing and starting to become a professional nurse.

STUDY III

The results of the first two studies made it clear that patients' involvement is crucial to students' learning although the first-and final-year students learning paths are different. The results revealed a need to see what occurs when students and patients encounter each other. Therefore an ethnographic approach was chosen for this study. Ten observations with follow-up interviews were conducted with 11 students and 10 patients. The focus of this study was on exploring encounters between patients and students in relation to students' learning at a clinical education ward. The analysis resulted in two narratives: *encounters between the patient and the student* and *patients' engagement in students' learning*. The first narrative consists of three themes and the second one consists of two themes. The themes capture the meaning of the interaction and relationships between patients and students as well as the different ways in which patients are engaged in students' learning.

Encounters between patients and students
The narrative illustrates encounters between patients and students involving different types of interaction, resulting in a relationship being formed between them. The theme *creating a good atmosphere* describes relationship-building. The nature of this relationship depends on the interaction between students and patients and is illustrated by the themes *mutual relationship* and *one-way relationship*. Good atmosphere and dialogue lead to a mutual relationship. If the dialogue is missing, the relationship is one-way instead of mutual.

Creating a good atmosphere
The students visit their patients and sometimes the patients are already waiting for them. If they are still asleep the students wake them up carefully. The students ask the patients how they are doing and whether they have slept well. If they have met the patient before, they also follow up on what has happened since they last met. If they are meeting for the first time, the students start by introducing themselves. There is a lot of smiling and laughter, and the patients and students have constant eye contact. The patients and students show interest in each other by asking questions and discussing not only the patients' medical condition, but also things outside the hospital. The students prepare their patients for medical-technical tasks, such as taking vital controls or blood samples by giving information not only about what is going to be done, but also about how and why. The students present their plan for the shift and discuss it with the patients, they make sure that the patients understand and accept the plan. The patients are given an opportunity to ask questions and state their opinion about the plan. Sometimes the patients wish to change some details, and if possible the students make the changes.

Mutual relationship
The students show interest in their patients by obtaining information about them in different ways. They read the records and observe the patients by looking, listening

and touching. They also assist their patients with activities in daily living when needed. The students put together all the information from their observations with the information from the records and reports from and discussions with peer students, supervisors and physicians. Spending time together with patients and communicating with them results in students getting to know their patients as individuals. The patients also get to know the students. They know how far the students have come in their education and how they are getting on. Sometimes the patients forget that the students are not yet graduated nurses, as the patients feel that the students have taken care of them in an equally qualified manner as the graduated nurses do.

One-way relationship
When the students focus on carrying out the planned tasks, the communication between patients and students is based on short questions and short answers about the tasks at hand. The students have few follow-up questions, and any questions are mainly related to the effects of medicine. The patients experience that the students do not enter their room spontaneously, but only when they are about to perform something or when the patients call them. The patients also express that they have to ask specifically for what they need; sometimes they even have to repeat and also remind the students about their wishes. The students inform the patients about the tasks they are about to perform or the patients inform the students, but there is no real dialogue between them. Both the students and the patients lack a holistic picture of the patients' situation.

Patients' engagement in students' learning
Patients are always engaged in students' learning, but their engagement depends on the nature of the relationship between them. The narrative about engagement in student learning is described by two themes: *Patient as an active participant* and *Patient as a passive participant* illustrate the different modes of patient engagement.

Patient as an active participant
When patients and students have a mutual relationship, the patient becomes an active participant in students' learning. The patients express an understanding of the students' need to practise and perform by themselves, not by observing and imitating the supervisors. The patients allow the students to perform different medical-technical procedures, such as taking blood samples, vital controls and wound care. The patients also show the students where they can find a suitable vein, they advise students on how to perform different tasks and they do it together with the students as well as check whether the students have all the necessary devices before beginning the procedures. They are willing to help the students even though the students sometimes fail and need to redo the procedure, which may even be painful for the patients. The patients do not only let the students perform these medical-technical procedures, but they also give the students information about themselves. They tell the students how the illness affects their lives. The patients actively take part in students' learning by allowing them to practise, telling about themselves, showing, giving advice, holding and reminding them of things. The patients also express awareness of their participation in students' learning.

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Patient as a passive participant
If the mutual relationship between patients and students is missing, the patients remain passive participants in the students' learning. This means that the patients still have an understanding of the students' need to practice and they are willing to help the students by allowing the students to train. The students focus on performing medical-technical tasks and inform patients of what will happen and how, but they do not always explain why. The verbal communication between patients and students is brief. When the students are performing medical-technical tasks, the patients often turn their heads away and they thus have very little eye contact with each other. As passive participants, patients help students by letting them practice. The patients offer parts of their bodies for students to practice on. The students express that they just repeat tasks they already know how to perform rather than learning something new from the patients.

The patient-student encounters in relation to students' learning at a clinical education ward result in a relationship that can be either one-way or mutual. The relationship thus becomes an attending relationship with patients as passive participants, or a learning relationship with patients who are involved as active participants in students' learning.

STUDY IV

In the previous studies, students' learning at a clinical education ward has been explored from the perspectives of students and patients, therefore the focus of the present study was on exploring supervisors' approaches to students' learning and their experiences of being a supervisor in this context. An ethnographic approach was used to study encounters between supervisors, students and patients. The study is based on the same ten observations as in *Study* III with the supervisors included, meaning that five supervisors, 10 patients and 11 students participated in the study. In addition to follow-up interviews, a group interview with the supervisors was also conducted. The analysis resulted in a narrative describing the supervisors' experiences of being supervisors.

Supervisors' approaches to and role in student learning
The narrative illustrates supervisors' approaches to and role in student learning consisting of four themes: *allowing the students their independence*, *pedagogical challenges*, *being there for the students* and *applying patient-centredness*.

Allowing the students their independence
The supervisors are informed about the students' learning outcomes and their background as individuals as well as a group. They trust the students' abilities to perform nursing care and medical technical tasks as well as to organize the work with support. The supervisors have continuous discussions and reflections with the students and they help them find answers and solutions. They give students advice and acknowledgement so they feel competent and comfortable enough to perform care for

the patients. The supervisors also follow up and give the students continuous constructive feedback.

Pedagogical challenges
Allowing students their independence creates a challenge in terms of balancing the patients' and students' needs. Supervisors are responsible for patient safety, while at the same time for letting students act as independently as possible, both individually and as a group. Both these responsibilities are equally important. The pedagogical challenge lies in waiting for students to make their own decisions without taking over the situations. The supervisors help students reflect on patients' status, symptoms, nursing interventions as well as the entire situation. Moreover, they follow up on students' reflections. Another pedagogical challenge lies in taking a step back, instead of doing things themselves, when it takes time for the students to act.

The supervisors have strategies for achieving and maintaining a balance between patients' and students' needs. The supervisors create a good atmosphere by communicating with the students and with each other. They collaborate and work as a team. They follow the clinical guidelines for patient care and the pedagogical guidelines, including the learning outcomes for students. The supervisors are informed about students' competencies, and based on this information they make a decision as to what kind of support the students need. This support is adapted to the individual students' needs and based on the learning outcomes. The supervisors follow the clinical guidelines and routines both when they perform tasks themselves and when they instruct students. They also hold regular meetings to discuss and follow up on pedagogical issues and they make a plan for the students.

Being there for the students
The supervisors are present; they stay close to the students, both behind and beside them. They are present, although the students spend time together with the patients without the supervisors. The supervisors and the students also work together and occasionally the supervisors take over based on either the patients' or students' needs. Sometimes the supervisors notice that students do not ask for help or communicate with the supervisors. In these cases, the supervisors look for the students, ask questions and offer them help. The supervisors ensure that students get the support they need. They also gather information about the students in several ways: observing and listening to discussions between the students, talking to patients and other members of the team, including the physician. The supervisors are responsive to and make an interpretation and analysis based on the information they get.

Applying patient-centredness
The supervisors work in a patient-centred manner which means that they are informed about the patients and make a plan for nursing care. The students are supposed to make their own plan for the patients and the supervisors follow up on the student's plans, making sure they do not miss anything. Although the supervisors are patient-centred in their approach, they do not perform all the care and tasks themselves. It is the students

who spend time together with the patients, performing the nursing care and other tasks without supervisors. The supervisors need to be able to let the students to do this. However, the supervisors need to know when to become involved in situations and sometimes even take over from the students. The supervisors also discuss the situation with the patients to inform themselves about the patients' experience.
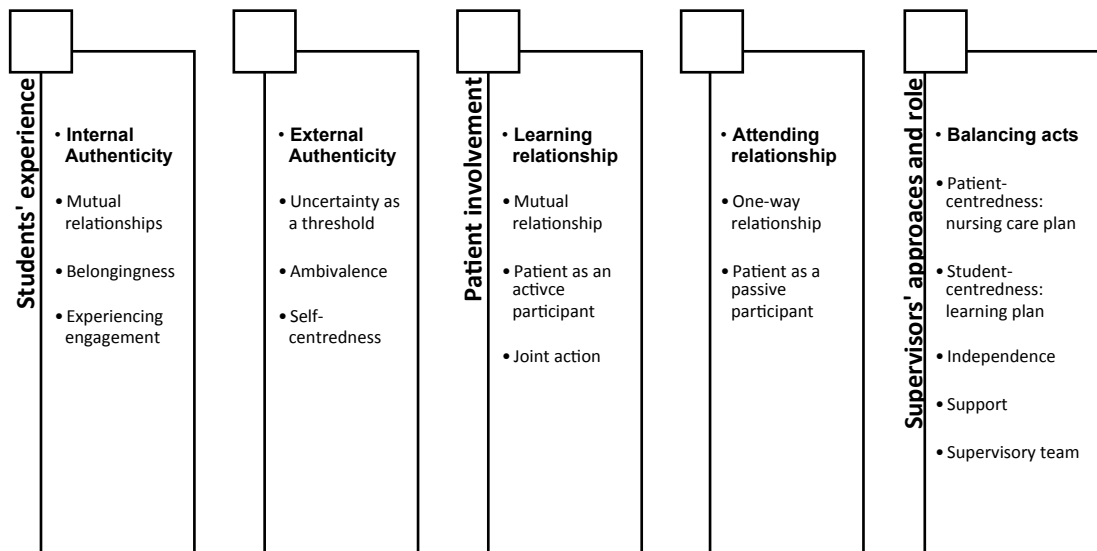

Figure 1. Overview of the main findings in *Study* I-IV. Students' experience of authenticity forms the basis of students' learning and influences student-patient encounters and how patients are involved in students' learning. Supervisors' approaches to and role in students' learning involve balancing patient care and student learning by applying patient-centredness, allowing students' independence and giving them adequate support.

DISCUSSION

The results show that the core of student learning at a clinical education ward is the experience of authenticity. One common way of understanding and discussing authenticity is that authenticity is achieved and experienced by being in real settings and/or by connecting to real situations. Brown et al. (1989) mean that learning is a process of enculturation involving students taking part in authentic activities and in social interaction. Authentic activities are defined as ordinary practices of the culture. Karlgren (2003) emphasizes the authenticity of the learning environment, which means an environment in which students are faced with same kinds of challenges as professionals. However, based on the findings of the present thesis, we would suggest that experiencing authenticity for learning consists of two dimensions, external and internal authenticity, and that both are needed for students' learning and particularly for meaningful learning, meaning-making and transformative learning. Our findings align with McCune's (2009) discussion about authenticity in learning and authentic learning experiences. We would argue that this is a significant and important finding. Experiencing both external and internal authenticity turns out to be crucial and linked in various ways to students' learning. Authenticity in this discussion refers to both external and internal authenticity if not explicitly stated.

In the present study authenticity is experienced when the students are given the opportunity to act as real nurses and to assume responsibility for their own patients which may also be challenging. Granted this, they feel that they are truly part of a team that takes care of patients. Authenticity is also experienced when they feel safe and supported even in the face of difficult challenges. The patients' role in students' experience of authenticity is crucial. Moreover, the results show that there are differences in student-patient encounters that are related to students' educational level. First-year students turned out to be more patient-centred, whereas final-year students' experience of uncertainty and ambivalence may cause them to alienate their patients. Thus, the supervisors' role in promoting students' experience of authenticity is also crucial. Supervisors provide both challenges and support for students. Accordingly, challenges and support become a prerequisite for students' experience of authenticity. Supervisors also know the students as well as the patients, which results in the creation of a nursing care plan for patients and a learning plan for students. These plans help supervisors to synchronize patients' and students' needs and resources and to help the students become more independent and gain in self-confidence. The results also show that working as a team enhances supervisors' ability to focus on students' learning. They all observe and perceive different aspects of the individual student's learning process. When they discuss and reflect together the different aspects become a whole that is based on the students' learning outcomes.

This discussion involves three sections (Figure 2). The first section, *Authenticity makes learning meaningful*, is about how authenticity as the core of student learning is linked to students' experiences of mutual relationship, belongingness, uncertainty as a threshold and experiencing engagement. The second section, *Learning relationships between students and patients*, is about patients' involvement in student learning. Finally, the third section, *Balancing patient care and supervision*, discusses supervisors' role in and approaches to student learning.
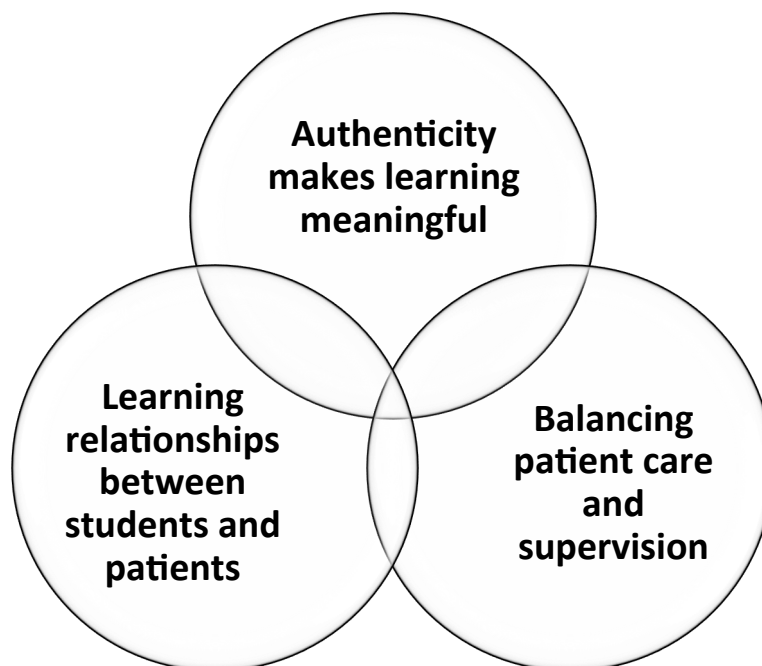
Figure 2. An illustration of students' learning at a clinical education ward where students are encouraged to take care of patients independently. Students' experience of authenticity and learning relationships can be achieved with supervisors' support.

AUTHENTICITY MAKES LEARNING MEANINGFUL

External- and internal authenticity
The results show that the students experience authenticity in relation to two dimensions: external authenticity and internal authenticity. External authenticity refers to being at a real ward and meeting real patients. Accordingly, external authenticity can be achieved merely by being in clinical settings. Internal authenticity refers, as emphasized by McCune (2009), to students' feeling of really making a contribution to knowledge construction and being a valid member of the team by being given sufficient independence, responsibility and support. In the present study the internal authenticity consists of students creating mutual relationships with patients and having a feeling of belonging. However, the experience of authenticity in students' learning at a clinical education ward turned out to be different for first-and final-year students. First-year students seem to experience both external and internal authenticity immediately. They create their own relationships with patients at once, and the patient becomes a basis for their learning. They feel that they contribute to patients' well-being, and they

experience support from supervisors and collaborate with peer students. Final-year students do not experience the internal authenticity directly, and the patient is not the basis for their learning in the same immediate way as it is for first-year students. Final-year students are self-centred and ambivalent, which leads to uncertainty as a threshold. They do not focus on patients, and supervisors are seen as instructors rather than as resources and sources of support. However, when they are given the opportunity to take care of patients who need extensive nursing care and therefore spend time together with their patients they start begin to overcome the threshold. Spending time with patients helps students establish a mutual relationship with the patients and results in an experience of engagement and learning.

It seems that for the first-year students, the experience of internal authenticity is achieved when they have genuine communication with their patients and when they establish a mutual relationship. The students are allowed to act as nurses and they build the relationship by themselves, not through the supervisors. This leads to an experience of belonging, meaning that the students feel they are truly a part of a team that takes care of patients. Accordingly, authentic learning experiences are genuine and influence students' identity and willingness to engage. Authentic learning experiences involve independence and responsibility, being questioned and finding alternative ways, becoming a member of a team as well as feeling like a professional, as emphasized by McCune (2009) and Kreber et al. (2010). According to the present results, an important aspect of authenticity is the mutual relationship. We would argue that students' learning is based on these relationships, they express that they learn *from*, *through* and *with* the patients. Early and many patient contacts form a basis for seeing patients as individuals as well as for developing clinical reasoning, skills and expertise. In these relationships students learn to how to take care of patients by learning to be receptive and responsible. The importance of the patient-student relationship in students' learning has been stressed by Bleakley and Bligh (2008) Suikkala et al. (2008) and Konkin and Suddars (2012). Another important aspect of authenticity concerns students experiencing of that what they do really matters for their patients and therefore that they are contributing to patients' well-being. They are accepted and valued at the clinical education ward. This can be understood as meaning that belongingness, too, is a prerequisite for learning in a clinical setting, which has also been suggested by Levett-Jones and Lathlean (2009). In the present study the dimension of experiencing authenticity in belongingness adds to these previous findings.

Comparison of first- and final-year students
First-year students' experiences of both external and internal authenticity at the clinical education ward results in learning and understanding nursing. The findings show that the students become capable of integrating theory and practice and that they develop an awareness of the nursing profession. Through their encounters with the patients, they realize and understand the nursing process, things that have just been words and concepts become tangible for students and they being to comprehend the nursing process in a holistic way. They apply their theoretical knowledge when performing patient care for and accordingly theory makes sense to them. They learn to observe, ask

questions, to analyse, to make a plan, to carry it out and to follow up by taking care of patients. The students learn to solve problems in real-life situations independently, but with support. They are exposed to various and novel situations that sometimes can even be frightening. By being in these situations the students gradually learn how to handle them and they begin gaining professional competence. Being in various situations and learning how handle and solve them is part of professional development, which is in line with Epstein and Hundert (2002). Thorkildsen and Råholm (2010) and Nilsson and Silén (2010) argue for the importance of supporting students' understanding of nursing and professional development by paying attention to the educational design, which aligns with the findings of the present study. Students' learning is based on and guided by their responsibility for their patients and their intention to provide good care for them. In turn, the students feel that they receive trust and support from both patients and supervisors. The patients show trust in the students' ability, and the supervisors support students by expecting them to be independent, but without abandoning them. Supervisors act by putting the students on the frontline, but being available when needed. In turn, the students are confident about getting help and support if necessary. The first-year students also express that the collaboration with peer students and other professionals enhances their understanding of nursing as well as their role as future nurses in relation to other professionals. Moreover, the findings show that encounters and reflections with peer students and supervisors are an important part of first-year students' learning and promote their professional development. The importance of reflecting on students' experiences for their learning process has been pointed out by Pedersen and Sivonen (2012), Kreber (2010 a; b) and Warne and McAndrew (2008).

For the final-year students, the learning process at the clinical education ward turns out to be more complex. The striking difference is the final-year students' self-centredness instead of patient-centredness, as well as difficulties in finding their role and place at the ward. It seems that the self-centeredness and the feeling of not belonging become an obstacle to their learning, giving rise to feelings of uncertainty and ambivalence about what and how to learn. These students have an ambition and wish to be independent, but these aspirations are transformed into dependence on being guided and instructed by supervisors. The feeling of uncertainty involves being self-centred, objectifying the patients and being ambivalent when interacting with patients, supervisors and peer students. The students long for independence, but at the same time they do not dare to act without specific instructions from their supervisors. Peer students are seen as competitors rather than as resources for learning. However, when the students take care of patients who need extensive nursing care and interventions, they begin showing an interest in the patient and in creating a mutual relationship and overcoming uncertainty. The feeling of uncertainty can be understood and explained as part of the transition process the final-year students find themselves in. The transition process is stressful, as described by McKenna and Green (2004) and Newton and McKenna (2007), and the present findings suggest that, at the clinical education ward, students become aware of the complexity of reality and the fact that they will soon enter into this reality. They also become aware of the fact that they are expected to be able to handle complex situations independently. Besides stress, the students also feel

vulnerable; they might even becoming aware of the knowledge and skills they are lacking. At the clinical education ward, the students are allowed to act as nurses and face the responsibility, yet they seem to view being at the ward as a threat rather as a safety. Their main focus becomes on performing nursing tasks with instructions from the supervisors and at the same time they distance themselves from the patients, the supervisors and the peer students. The transition can be understood as a critically intensive learning period, as emphasized by Kilminster et al. (2011), implying that the knowledge and skills that the final-year students already have are only part of what they need in order to perform as nurses at the clinical education ward. This means further that the students cannot be fully prepared in advance, because learning and performance depend on each other and cannot be separated. This also means taking in account the social relationships in this context. Consequently, the final-year students' specific needs, which are related to the transition, need to be recognized, acknowledged and addressed.

One way to do this is to help final year students overcome their uncertainty. The feeling of uncertainty can be linked to the threshold concepts, which have been identified as essential in learning: without crossing the threshold learning cannot progress. Meyer and Land (2005) and Clouder (2005) state that crossing the threshold means that students change their view on what it means to learn in a specific setting and also to achieve a more complex level of understanding. For final-year students, the emotional aspects of learning seem to be important, while previous discussions related to the concepts of threshold stress cognitive aspects. Final-year students cross the threshold when they are challenged by a patient with complex needs for nursing care. They start to collaborate both with supervisors and peer students and they find their role as future nurses. Furthermore, final-year students acknowledge the importance and meaning of nursing. They are supported to act independently, resulting in a feeling of being confident enough to handle complex situations as well as an experience of development. Final-year students need challenges - meaning that they need to be pushed out of their comfort zone - but in a safe way, as also stressed by Hodges (2011).

First- and final-year students' differences in terms of being patient-centred and self-centred, respectively, constitute an interesting finding that is worthy of further investigation. The loss of patient-centredness when nearing graduation has been recognized in previous research, and one reason for this might be previous experiences of poor role models and task-oriented supervision. Therefore, supportive learning environments focusing on students' learning and patient-centred role models are needed throughout the education. This has also been pointed out by Tsimtsiou et al. (2007), Bombeke et al. (2010) and Suikkala et al. (2008). However, it is important realize that students in a transition process do not automatically adopt a patient-centred approach, but need help and support.

Trust is an essential part of support. First-year students feel that they are trusted by both patients and supervisors, which causes them to trust themselves and assume the responsibility that is offered. Whereas final-year students, until they overcome the

threshold of uncertainty, do not feel the trust they are given by supervisors and patients. This is a lesson to be learned: even though trust is included in the pedagogical framework and culture at the ward, there seems to be a difference in how the students understand it. Interestingly, final-year students have difficulties feeling trust, which might be a result of their previous experiences. Hauer et al. (2013) consider that students are supposed to earn trust. This means that, in the beginning students observe supervisors and the context and they are gradually given opportunities to perform themselves, often with the supervisors present. But trust is also a matter of balance: too little trust marginalizes students while too much may risk patient safety. The present study shows that, at the clinical education ward, the students are entrusted to take care of patients from the very beginning, taking into account their level of education, the intention being that trust will provide a platform for students' development. However, it is important to acknowledge the possibility that not all students will feel the trust, and therefore supervisors have a crucial role in getting students to feel this trust. Accordingly, from the students' perspective, trust can be seen as both a prerequisite and a challenge.

Authenticity and meaning-making

When the students experience both external and internal authenticity, they make sense of their experiences and their learning becomes meaningful. These experiences include challenges, support and feedback, which result in a process of meaning-making and knowledge construction (Mayer 2002; Kaufman and Mann 2010). This process is also linked to Mezirow's (2009) theory of transformative learning. The clinical education ward provides a learning environment in which students are allowed to act as future professionals and assume responsibility by taking care of real patients in real situations. Students are given opportunities, challenges and support in a real but safe setting. The challenges concern patient care and collaboration with other health-care professionals and peer students as well as running the ward. These challenges in this context, with the pedagogical framework and resources, lead to self-reflection and transformation. The students do not only gain new experiences, knowledge and skills, but they also develop new courses of action as future professionals. They feel more confident about their future role and more safe in knowing how to handle different situations. They have increased their ability to find solutions and realized the meaning and importance of patient-centredness.

LEARNING RELATIONSHIPS BETWEEN STUDENTS AND PATIENTS

The results show that when a learning relationship between students and patients is established, the patient becomes actively engaged in students' learning. However this does not always happen, and there are differences in patients' engagement related to the patient-student relationship. It is important that supervisors be aware of this and observe the relationship in order to help the student establish a relationship with the patient. Accordingly, students need to be able to create a mutual relationship and a good atmosphere. An important part of this seems to be that students learn how to get to know the individual patient's needs and make a plan for how to take care of the

patient. This plan should be based on the patient's needs and resources, taking into account medical, nursing and psycho-social aspects as a whole. The plan is adjusted when the patient's condition changes. The prerequisite for creating a mutual relationship and good atmosphere is the patient-centred approach. The students take care of their own patients as independently as possible, and they have a continuous dialogue with the patients. This implies that the students are interested in patients as individuals and subjects, spend time with them and show responsiveness as well as assume responsibility for their patients' care which is also stressed by Warmington (2011) and Suikkala and Leino-Kilpi (2005).

The *learning relationship* means further that the student encourages the patient to get involved in the care. The students not only give information about what is going to happen, but also explain how everything is linked together in a way that patients can understand. The students invite patients to make changes in the plan when possible. This results in patients feeling informed and listened to. This is an important aspect. If patients feel that their experiences are being overlooked, they feel prevented from participating in their care due to lack of knowledge and support, as pointed out by Berglund et al. (2012). Accordingly, in the present study, the collaboration between students and patients leads to a learning relationship in which learning becomes a joint action. Students express that they learn with and through patients, and patients feel that they gain more knowledge of their condition as well as contribute to students' learning in different ways, thus they both experience learning. In a learning relationship, patients are subjects and active participants. They are interested in students and willing to help them in their learning. The importance of patient participation in student learning has been emphasized by Stockhausen (2009), Bleakley et al. (2011) and Lauckner et al. (2012). Based on the present findings, it can be concluded that the pedagogical framework based on patient-centredness means that patients are allowed to participate in students' learning in a direct and active way, although they are not trained for this participation.

However, the student-patient encounters do not always result in a learning relationship. An *attending relationship* is established when the relationship remains one-way. This means that the patient and the student communicate past each other. They talk without reaching each other or they do so only partially. An attending relationship means that the patient still has a positive attitude towards students and their learning. They willingly let students practice on parts of their bodies. In turn, the students focus more on performing various tasks than on knowing the patient as a whole and how the tasks and interventions are linked together. What is missing in an attending relationship is the mutual relationship and communication. This results in the students not having a holistic picture of the patients and their situation, and the information and explanations given by the students only concern the specific tasks. Students focus on performing the task, which leads to an experience not of learning, but of gaining experience and confidence in performance. The patient does not experience learning either, as she or he does not get the whole picture, only fragments. From the student perspective, it is about learning *from* the patient, and from the patient perspective it is about letting the student

practice on her/his body without actually taking part in student's learning. Patients are merely seen as objects who participate in a passive way, and the joint action is missing here because there is no mutual relationship. They do not experience learning that benefits them both. The importance of a mutual relationship as a basis for learning is also emphasized by McLachlan et al. (2012) and Monrouxe et al. (2009).

For students' learning an attending relationship may be related to a surface approach to learning, resulting in rote learning rather than meaningful learning (Marton and Booth 1997; Mayer 2002). In an attending relationship students do not take the challenges and they seem to experience only external authenticity in their encounters with patients. On the contrary, in a learning relationship, encounters between students and patients become meaningful. They work together and their interaction results in transformative learning and knowledge construction. The students relate their experiences to previous knowledge, thus gaining a new understanding and readiness for future encounters (Mezirow 2009; Illeris 2009; Mann et al. 2011).

BALANCING PATIENT CARE AND SUPERVISION

Supervisors' role in the students' experience of both external and internal authenticity is pivotal, although the students experience their role differently depending on the educational level. Seen from the students' perspectives first-year students express that supervisors support them in working independently with their own patients. The students feel they receive adequate support and they have a mutual communication. Further they experience the supervisors as competent and confident persons who are focused on students' learning. Final-year students have a more complicated relation to the supervisors. When the students feel uncertain, self-centred and ambivalent, the supervisors are seen as models to follow. The students expect to receive clear instructions on what to do and how to do it. When the final-year students overcome the threshold of uncertainty, they see the supervisors as resources and sources of support for their learning. From the supervisors' perspective, the findings show that they perceive their role as of balancing patient care and student learning; they are responsible for both the patients and the students.

At the clinical education ward, these two parts are meant to be acknowledged as equally important, and consequently, the supervisors are allowed to focus on supervision, not only on patient care. This forms a basis for the pedagogical framework and it is also something that distinguishes this context from traditional wards. It is more common that supervision of the students is, albeit mandatory, considered secondary to patient care, which also means that the structures and resources are not always the best, as pointed out by Sedgwick and Harris (2011), Jokelainen et al. (2011) and Dilworth et al. (2013). At the clinical education ward, supervisors are allowed to focus on both students' learning process and patient care, hence the supervisors do not consider them as separate tasks, but as a whole. This need for recognition and adequate support to be able to supervise students has been pointed out by Omansky (2010), and accordingly one way to meet these needs is by using a pedagogical framework that acknowledges

supervisors' dual role. Moreover, supervisors focusing on student learning and being there for students, as stressed also by Silén et al. (2011), are also tied to the pedagogical framework. The supervisors are striving for to allow the students independence, meet pedagogical challenges and be there for students. At the same time, they apply a patient-centred approach as nurses and supervisors.

Balancing between patients' and students' needs involves a process of identifying and analysing these needs, making a plan and following up. The supervisors are in two processes simultaneously, resulting in a nursing care plan for patients and a learning plan for students. In order to make plans, supervisors need to be present both with the patients and with the students, though without taking over the care that the students are supposed to carry out. In the present study, the supervisors' approach is to focus on students' learning and to pay attention to both students and patients, rather than their own performance. The supervisors challenge the students to reflect on and discuss their thoughts and actions. They also use different acts of supervision such as giving support, stepping back and guiding. Being there and focusing on the students and the patients involves linking together authenticity and pedagogy as emphasized by Kreber (2010a; b). Authenticity related to supervisors' approaches and pedagogical role in student learning means that supervisors are committed to certain values, including doing what is best for patients as well as for students. This means further that supervisors help students gain intellectual, and intra- and interpersonal maturity, which enables students to cope with the complex challenges they will meet both as students and as future professionals. The supervisors care for the students and the patients and do what is necessary to promote their interests of them by engaging them in a dialogue.

The supervisors' reflect on and discussions with students comes emerge as one way to support students' learning process on a metacognitive level. According to Pintrich (2002) this implies that students achieve knowledge of general strategies, what the possible strategies are, and how, why and in which situations they can be used. The strategies involve learning, thinking, problem-solving and encouraging students to become aware of their own strengths and weaknesses. The present findings show that supervisors' metacognitive support involves helping students to solve problems. This means that supervisors do not give students the answers, but help them find them. The supervisors also adapt and relate their support to students' learning outcomes and educational level. Moreover, Mann et al. (2009) stress that reflection helps students make meaning of and learn from complex situations when the environment is supportive both intellectually and emotionally. They point out the importance of supervisors making their activities explicit for students. This is in line with the present findings when supervisors help students reflect both individually and as a group. Moreover, the supervisors' collaborative reflections on pedagogical issues are part of the pedagogical framework, which is made explicit for the students.

Supervision at the clinical education ward is about facilitating students' learning and supervisors accomplish this as a supervisory team. Working as a team, they discuss problems and achievements both regarding students and patients, and they support each

other. They have routines and guidelines regarding both students' learning and patient care. They are not only aware of learning outcomes for the students, but they know the individual students as well as the patients, and accordingly they can tailor students' learning while taking into account patients' needs. Based on the present findings, creating supervisory teams, as suggested by Henderson and Eaton (2013) and McKown et al. (2011), may be one way to further develop supervision which would then not be based on individual supervisors' own thoughts and subjective assessment, but on evidence-based knowledge and a more objective assessment. It is important to note that students may have concerns about having a team of supervisors, and they may experience feelings of ambivalence. This means that students may wish to have personal supervisors who give them specific instructions, as the final-year students expressed in the present study. Another important aspect is to actually see all individuals. These are aspects that the team needs to be aware of and be ready to handle.

Supervisors' role in and approaches to student learning at the clinical education ward are also linked to transformative learning (Mezirow 2009); by supervising on a metacognitive level, supervisors can enhance students' processing of meaning-making experiences. Kegan (2009) suggests that supervisors are supposed to challenge students' understanding of themselves and the world as well as the relationship between themselves and the world, which can be a complex process, and thus supervisors need to help students throughout this process. In this context, it means that supervisors should challenge the students' picture of themselves as students and as future professionals by giving them both independence and responsibility. The studies in the present thesis show that, in the beginning students feel confused and even frightened, but that they gradually start finding work and learning patterns that works for them and for the patients, and they become more confident and knowledgeable as well as independent. During the whole process of what can be regarded as a transformation, the supervisors are there, ready to intervene if necessary based on the students' or patients' needs.

In sum, many of the findings of the present project are in accordance with Land et al. (2014) discussion of learning in the liminal space, meaning that transformative learning involves overcoming thresholds. This is illustrated in Figure 3. At a clinical education ward, characterized as the setting explored in the present project, transformative learning involves experiencing both external and internal authenticity, which forms the basis for creating learning relationships between patients and students. Students learn about nursing and about their future professional role as nurses. However, experiencing authenticity and mutual relationships is potentially troublesome and there are thresholds to overcome, particularly for students nearing graduation. The pedagogical framework at the ward is intended to help students overcome the thresholds, but accomplishing this depends on whether they understand and make use of the potential for learning. Students' ability to think reflective and to tolerate uncertainty are also aspects that are implied in the pedagogical framework.

Supervisors' role in the liminal space is crucial, as they provide both challenges and support. They identify students' needs and help them through the transformative learning process by acknowledging the liminal space and troublesome knowledge. They can help students by being both patient- and student-centred. Accordingly, supervisors need to have contextual knowledge, that is knowledge in nursing, medical, behavioural and other sciences tied to the context, which constitutes the pedagogical content knowledge needed to enhance student learning in clinical settings.
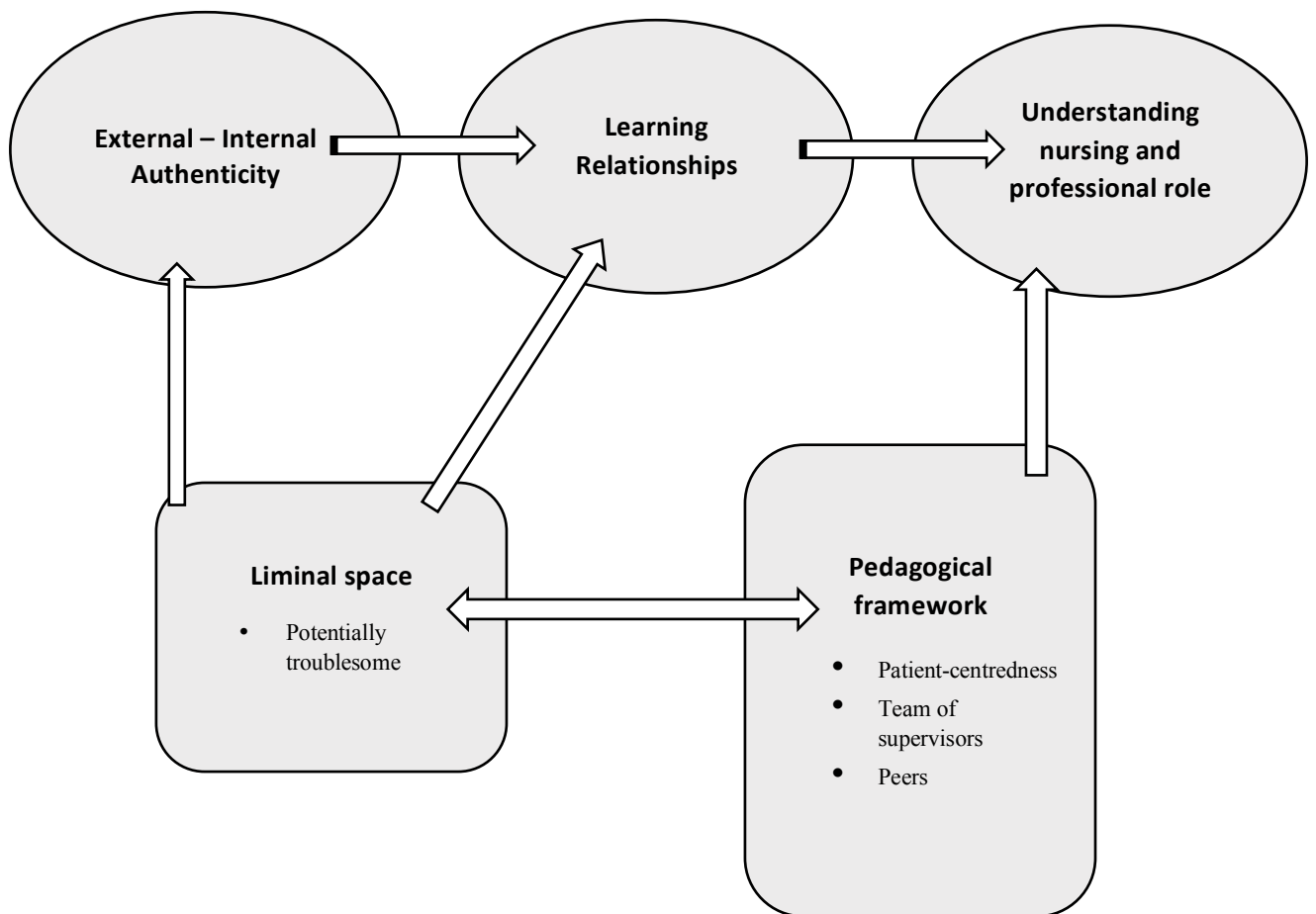
Figure 3. Transformative learning in a liminal space. Student learning at a clinical education ward is illustrated as a transformative process in a liminal space interpreted after Land et al. (2014). Students' experience of both external and internal authenticity forms the basis for creating learning relationships between patients and students which result in students' learning and understanding nursing and their role as future professional nurses. Experiencing authenticity and learning relationships can be understood as thresholds and therefore potentially troublesome. Liminality refers to the space of transformation and the pedagogical framework is intended to support students in their learning process.

METHODOLOGICAL REFLECTIONS

Voluntary participation raises a question about potential disadvantages concerning the variation of the participants. In the present project the focus was to obtain a broad and deep picture of student learning in this context. Therefore the students were recruited from different levels. The patient recruitment was based on the length of their stay, meaning that they would have experienced care carried out by students, and that they would be able to communicate verbally with students and supervisors. Because the participation, in both cases, was voluntary, it is possible that not all kinds of experiences have been captured. However, the participants have expressed varied experiences concerning the issues researched into. The students have also expressed different perspectives on their learning, including both positive and less positive perceptions of practicing on the clinical education ward. The findings of the present project are based on both the students', patients' and supervisors' experiences and interactions, which were collected through individual and group interviews and observations. The interviews with the students were conducted in two ways, after they had completed their clinical practice at the ward (*Study* I and *Study* II) and during their clinical practice (*Study* III). Patients' experiences were collected during their admission. The interviews with supervisors were both individual and group interviews and conducted during the students' clinical practice and after they had completed it (*Study* III and *Study* IV). Although each individual participant always decides what and how they to choose to talk about, the various types of interviews, both regarding the form and timing of the interviews, have resulted in rich experiential data. The interviews that were conducted after the clinical practice have probably been affected by the fact that time changes our memories. On the other hand, the students had a possibility to distance themselves from immediate single events and reflect on their clinical practice at the clinical education ward as a whole. Another aspect is that the experiences have been explored from multiple perspectives. To broaden our understanding of students' learning, observations were also used in data collection. Observations have allowed us to see what actually happens in encounters between the patient, students and supervisors. The length of the observations was approximately four hours per observation which may be considered a short time in an ethnographic study and seen as a disadvantage. However, the ten observations resulted in rich descriptions of the encounters, and the follow-up interviews were intended to complement the observations by capturing the participants' views and obtaining a more complete picture of the encounters. Accordingly, exploring the phenomenon under study, student learning at a clinical education ward, from multiple perspectives and collecting data in different ways can be seen as a strength.

In the process of ensuring trustworthiness, member checking can be used, which means taking either the data during analysis or the results back to the participants for feedback and verification (Savin-Baden and Howell Major 2013; Creswell 2007). In the present thesis member checking was not used for two main reasons. First, it would have required great efforts both regarding time and organizing the member checking, and

second, the participants see the research differently from the researcher. They see it from their individual point of view, whereas the present thesis attempts to explore and interpret individual's experiences as a whole. This means that individual participants may argue see a misinterpretation from their perspective, which in turn may affect the process of analysis and interpretation. Instead of member checking research triangulation, audit trail as well as peer reviews in different phases during the research process were used to enhance trustworthiness (Savin-Baden and Howell Major 2013).

The methodological choices in the thesis are based on the research questions and description of the methods and theoretical conceptions and perspectives is intended to give the reader an understanding of the research process and the interpretation and presentation of the findings. An important aspect in understanding the findings is the context, which has been described at some length. The theoretical framework for learning described in the beginning and relating the findings to Mezirow's (2009) theory of transformative learning and connecting these aspects to concepts like authenticity and thresholds for learning as well as to previous research in the field are intended to create prerequisites for the reader to transfer the findings to other contexts.

CONCLUSIONS

In the present thesis students' learning at a clinical education ward was explored from students', patients' and supervisors' perspectives, the aim being to deepen our understanding of student learning in a context where they are supported in taking care of patients independently. The findings suggest that experiencing authenticity, both external and internal, is the core of student learning in clinical practice. Patients' active participation and supervisors' support are essential to the students' experiences of authenticity. Conclusions that can be drawn from the findings are:

- Mutual relationships, created by the students, between the students and the patients and students' feeling of belongingness constitute the basis for students' learning and are an important part of their professional development.

- Students, in the beginning of their education, create their own relationships with patients almost immediately and have a patient-centred approach when learning.

- Students nearing their graduation seem to be in a transition process characterized by self-centredness and ambivalence. They experience feelings of uncertainty, which creates a threshold for their learning and causes them to objectify patients. To overcome the threshold and experience authenticity, students need to create relationships with patients and become patient-centred. The supervisors have a crucial role in this process.

- Students learn from, through and with their patients meaning, that patients are engaged in students' learning either as passive or active participants. If the students do not manage to create a mutual relationship, the patient will become a passive participant. An attending relationship between the student and the patient is based on one-way communication, and the student learns *from* the patient. A mutual relationship between them leads into a learning relationship, which is a joint action through which both the student and the patient experience learning. Students learn *with* and *through* patients.

- Supervisors' role as a team in students' learning involves balancing between patient care and student learning by allowing students their independence, but at the same time being there for both students and patients. This is a pedagogical challenge for the supervisors. They try to handle their challenges by applying patient-centredness and student-centredness, thus by making a nursing care plan for patients and a learning plan for students.

- An explicit pedagogical framework based on patient-centredness, peer-learning and a supervisory team creates prerequisites for experiencing both external and internal authenticity – the core of student learning.

IMPLICATIONS FOR PRACTICE

Based on present findings following suggestions has been developed with regard to implications for practice, which entail how the findings could influence clinical education.

- A clinical learning environment should be based on local conditions but the core should be creating possibilities for students to experience authenticity.

- A supportive learning environment needs an explicit pedagogical framework that is applied both when taking care of patients and supervising students. The pedagogical framework needs to be acknowledged and applied by all who are involved in student learning, both in clinical settings and in educational institutions. The pedagogical framework needs to be explicit for the students so that they can understand how it frames their learning in the actual setting and how it is connected to their learning outcomes.

- Students need both challenges and support and for this reason, it is important to take into account students' educational level as well as individual differences.

- A learning plan for students that is based on their learning outcomes and patients' needs can help the supervisors to focus on student learning.

- Patients should be invited and allowed to be active participants in student learning.

- Supervisors need support and opportunities to discuss pedagogical issues on a regular basis.

FUTURE RESEARCH

Many new questions have been raised during my work with the thesis, and following topic areas, regarding a clinical setting with an explicit pedagogical framework, need to be further explored.

- Peer-learning, to acquire a deeper understanding of how students learn from and with each other and how this can be developed further.

- Whether and how a clinical practice at a setting with a pedagogical framework influences students' learning later in their education.

- Supervisors' professional development as supervisors.

- What is the significance of learning outcomes at a clinical education ward compered to students in other clinical settings – differences and similarities?

SAMMANFATTNING

I professionsutbildningar inom hälso- och sjukvård är de verksamhetsförlagda delarna av utbildningen mycket viktiga. Där tränar studenterna sin kommande profession genom möten med företrädare för den egna professionen, patienter, andra professioner samt medstudenter från den egna och andra utbildningar. En gemensam målsättning för utbildningar inom hälso- och sjukvård är att utbilda studenter som, när de är yrkesverksamma, kommer att bidra till patients välbefinnande och hälsa. Denna avhandling fokuserar på att undersöka och förstå innebörden i studenters lärande i verksamhetsförlagd utbildning på en utbildningsavdelning dvs en avdelning som särskilt har utformats för studenter och som har en genomtänkt pedagogik för studenternas kliniska praktik. I studierna i avhandlingen har sjuksköterskestudenter undersökts men ett övergripande syfte är att generera generell förståelse av hälso-och sjukvårdsstudenters lärande i klinisk miljö. Det bygger på antagandet att det finns gemensamma nämnare för studenter i olika utbildningar men också att vissa aspekter är mera knutna till en specifik profession. Gemensamma aspekter är exempelvis möten med patienter och samarbete med olika professioner medan utvecklingen av den professionella kompetensen involverar yrkesspecifika kunskaper och färdigheter.

Den pedagogiskt teoretiska referensramen i avhandlingen tar sin utgångspunkt i att lärande i den verksamhetsförlagda utbildningen kan förstås som en transformativ process. Den involverar skapande av kunskap och meningsfullt lärande som sker genom olika möten. I en transformativ process reflekterar studenten över det som händer i dessa möten och kopplar ihop det med tidigare kunskaper och erfarenheter både individuellt men också tillsammans med handledare och andra studenter.

Meningsfullt lärande och kunskapsskapande som är viktiga delar i transformativt lärande drivs av motivation som i sin tur kan vara baserad på intresse, vilja, behov eller krav. I meningsfullt lärande bearbetar studenten aktivt aktuella erfarenheter genom att integrera tidigare kunskaper och erfarenheter och genom att tolka, förklara, jämföra, analysera och tillämpa. Denna meta-process går utöver att känna igen och komma ihåg. Lärandet handlar således om att införskaffa sig nya erfarenheter och genom bearbetning och reflektion transformera dem till nya kunskaper och färdigheter samt handlingsberedskap i en social kontext.

Lärande i verksamhetsförlagd utbildning innebär till stora delar att öva problemlösning, träna den kommande yrkesrollen och utveckla den professionella kompetensen genom att tillämpa kunskaper och färdigheter i situationer studenter ställs inför i möte med patienter och annan personal. Verksamhetsförlagd utbildning bedrivs i olika kontexter, exempelvis sjukhus, äldreboende, vårdcentral och hemsjukvård, där patienter, personal och studenter medverkar. Lärandet i verksamhetsförlagd utbildning syftar till att få möjlighet att träna den kommande yrkesrollen under realistiska förhållanden och förbereda studenter för arbetslivet.

Organisationen av den verksamhetsförlagda utbildningen för studenter varierar vad gäller inriktningen på verksamheten, placeringens längd samt hur handledningen är organiserad. Sjuksköterskeutbildningen består till ungefär hälften av verksamhetsförlagd utbildning. Sjuksköterskestudenter gör sin verksamhetsförlagda utbildning under utbildningen inom såväl sluten- och öppen vård och längden av placeringarna kan variera från en till flera veckor. Studenterna är ofta placerade på en enhet under den aktuella verksamhetsförlagda utbildningsperioden och handleds av en eller flera sjuksköterskehandledare.

Tidigare studier har visat att det finns ett flertal utmaningar i den verksamhetsförlagda utbildningen. Dessa utmaningar är kopplade till både organisatoriska och pedagogiska aspekter. Den kliniska lärandemiljön är inte alltid optimal vilken delvis kan förklaras med att huvuduppgiften är att vårda patienter men samtidigt finns också ett utbildningsuppdrag. Personalbrist, ekonomiska frågor, hög arbetsbelastning samt bristande struktur för handledningen utgör hinder för att skapa en bra lärandemiljö. Studenterna upplever att det finns olika förväntningar på dem från lärosätet och vårdverksamheten och att deras egna förväntningar inte alltid stämmer överens med dessa. Vidare upplever studenter att de inte alltid får stöd under den verksamhetsförlagda utbildningen utan lämnas ensamma i sitt lärande. Patienterna förväntas delta i studenters lärande genom att låta studenterna vara involverade i vården. Patienterna upplever att det är positivt att kunna bidra till studenternas utbildning men kan också uppleva att de ibland lämnas utanför i kommunikationen mellan studenter och handledare. Ett sätt att möta en del av utmaningar som beskrivits ovan är skapandet av utbildningsavdelningar. De är avdelningar där utbildning av studenter sker i samarbete med vårdverksamhet och lärosäte och där studenter på olika nivåer tränar sin kommande profession. Utbildningsavdelningar kan fokusera på att utbilda studenter inom en profession eller på interprofessionell utbildning. Studenterna tillåts vårda patienter självständigt med stöd av handledare. Tidigare forskning visar att utbildningsavdelningar kan bidra till att förbättra studenters lärande i den verksamhetsförlagda utbildningen och att patienterna uppskattar att bli vårdade på utbildningsavdelningar. På Karolinska Universitetssjukhuset finns en utbildningsavdelning sedan år 2005 som utbildar sjuksköterskestudenter. Avdelningen har ett pedagogiskt ramverk baserat på transformativt lärande. Detta innebär att studenterna vårdar sina egna patienter individuellt och i par, de handleds av en grupp handledare och studenterna arbetar och lär tillsammans.

För att bättre kunna förstå på vilket sätt utbildningsavdelningar skulle kunna bidra till att möta de utmaningarna som har identifierats undersöks i den här avhandlingen studenters lärande på en utbildningsavdelning som har ett tydligt pedagogiskt ramverk. Studenters lärande undersöks från studenters, patienters och handledares perspektiv. Avsikten är att generera kunskap som kan bidra till utformandet av lärandemiljöer och strukturer för handledning av studenter inom hälso- och sjukvård.

Fyra studier har genomförts samtliga på en utbildningsavdelning där sjuksköterskestudenter på olika nivåer gör sin verksamhetsförlagda utbildning. Studenterna vårdar patienter självständigt med stöd av handledare. I delstudie I undersöktes första års studenters upplevelser gällande deras lärande på aktuell utbildningsavdelning. Nitton studenter djupintervjuades efter avslutad verksamhetsförlagd utbildning. En kvalitativ innehållsanalys genomfördes och resultatet visade att studenterna skapade ömsesidiga relationer med patienter och de upplevde känslan av delaktighet vilka resulterade i upplevelsen av både yttre och inre autenticitet. Upplevelse av yttre autenticitet innebär att studenten är på en riktig avdelning och möter riktiga patienter. Upplevelse av inre autenticitet involverar en känsla av delaktighet och skapande av ömsesidiga relationer med patienter. Denna upplevelse av både yttre och inre autenticitet ledde till lärande och förståelse för omvårdnad och sjuksköterskans professionella roll.

I delstudie II undersöktes sista års studenters upplevelser gällande deras lärande på utbildningsavdelningen genom djupintervjuer av 18 studenter efter avslutad verksamhetsförlagd utbildning. En kvalitativ innehållsanalys genomfördes och resultatet visade att sista års studenters lärandeprocess var mer komplicerad. När studenterna endast upplevde yttre autenticitet blev de ambivalenta och gav uttryck av att vara självcentrerade, de fokuserade på vad de själva skulle göra och patienterna blev objektifierade. Studenterna visade stor osäkerhet som också skapade en tröskel, ett hinder för dem att gå vidare i sitt lärande. När studenterna fick ta hand om patienter med stora omvårdnadsbehov ledde det till att de själva skapade relationer med patienter, de engagerade sig i patientens vård och visade att de kom över tröskeln av ambivalens och osäkerhet. Att komma över denna tröskel resulterade även i upplevelsen av inre autenticitet och upplevelsen att lära sig.

Delstudier III och IV var etnografiska studier där 10 observationer av vårdsituationer mellan patienter, studenter och handledare och där interaktionen mellan dessa aktörer studerades avseende interaktion och händelseförlopp. Efter varje observation intervjuades patienterna, studenterna och handledare och de fick berätta vad som hände och hur de upplevde mötet. Handledarna på avdelningen intervjuades också i grupp gällande sina uppfattningar och upplevelser av att vara handledare på utbildningsavdelning där studenterna, enligt det pedagogiska ramverket, själva i stor utsträckning vårdar patienter. Intervjun genomfördes efter att studenterna hade avslutat sin verksamhetsförlagda utbildning på avdelningen.

I delstudie III analyserades möten mellan patienter och studenter. Resultatet visade att om studenterna lyckas skapa en ömsesidig relation med patienterna leder det till att patienterna blir aktivt involverade i studenters lärande och de skapar en lärande relation där även patienten lär sig. Om studenterna inte lyckas skapa denna ömsesidiga relation förbli patienten en passiv deltagare som låter studenten öva på patienten som ställer sin kropp till förfogande. Denna relation kännetecknas av bristen på ömsesidighet där patienten och studenten talar förbi varandra och där studenten fokuserar på att utföra enskilda uppgifter.

I delstudie IV undersöktes genom observationer och intervjuer handledares förhållningssätt till studenters lärande och deras pedagogiska roll på utbildningsavdelningen. Resultatet visade att handledarnas roll till stora delar handlar om att skapa balans mellan att vårda patienter och att handleda och att det blir en pedagogisk utmaning för dem. Handledarna hanterar denna utmaning genom att skapa en omvårdnadsplan för patienter och en lärandeplan för studenter. För att kunna utforma dessa planer har de både ett patient- och studentcentrerat förhållningssätt och tillbringar tid både med patienter och med studenter. Samtidigt låter de studenterna arbeta självständigt men stödjer dem vid behov och hjälper dem att reflektera över sina upplevelser. Handledare arbetar som ett team och använder både kliniska och pedagogiska riktlinjer i sitt arbete.

Slutsatser som kan dras från de fyra delstudierna är att upplevelsen av autenticitet gör lärandet meningsfullt och att studenterna behöver uppleva både extern och intern autenticitet i lärandeprocessen. Upplevelsen av endast den yttre autenticiteten riskerar att leda till att studenter fokuserar på utföra uppgifter och att patienterna blir objektifierade vilket blir ett hinder för att gå vidare i lärandeprocessen. Upplevelsen av inre autenticitet gör att studenten känner delaktighet i verksamheten och att det hon/han gör är betydelsefullt för patienten. Vidare är patienternas aktiva deltagande och att handledare ger både utmaningar och stöd viktiga delar i studenters lärandeprocess. Ett tydligt pedagogiskt ramverk som involverar patient-centrerat förhållningssätt, lärande tillsammans med andra studenter och ett team av handledare skapar förutsättningar för upplevelsen av extern och intern autenticitet – kärnan i studenters lärande i verksamhetsförlagd utbildning.

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REFERENCES

Alvesson, M; Sköldberg, K. 1994. *Tolkning och reflektion – vetenskapsfilosofi och kvalitativ metod*. Lund: Studentlitteratur.

Astin, F; Newton, J; McKenna, L; Moore-Coulson, L. 2005. Registered nurses' expectations and experiences of first year students' clinical skills and knowledge. *Contemporary Nurse*, 18 (3): 279-291.

Berglund, M; Westin, L; Svanström, R; Johansson, AS. 2012. Suffering caused by care – patients experiences from hospital settings. *International Journal of Studies on Health and Well-being*, 27 (7): 1-9.

Biggs, J; Tang, C. 2011. *Teaching for Quality Learning at University*, 4th ed. Maidenhead: SRHE and Open University Press.

Bleakley, A; Bligh, J. 2008. Students Learning from Patients: Let's Get Real in Medical Education. *Advances in Health Sciences Education Theory and Practice*, 13 (1): 89-107.

Bleakley,A; Bligh, J; Browne, J. 2011.*Medical Education for the Future. Identity, Power and Location. Advances in Medical Education Volume 1*. London: Springer.

Bombeke, K; Symons, L; Debaene, L; De Winter, B; Schol, S; Van Royen, P. 2010. Help, I'm losing patient- centeredness! Experiences of medical students and their teachers. *Medical Education* , 44 (7): 662-673.

Bourgeios, S; Drayton, N; Brown AM. 2011. An innovative model of supportive clinical teaching and learning for undergraduate nursing students: The cluster model. *Nurse Education in Practice*, 11 (2): 114-118.

Brammer, J. 2006. A phenomenographic study of registered nurses' understanding of their role in student learning – An Australian perspective. *International Journal of Nursing Studies*, 43 (8): 963-973.

Brennan, N; Corrigan O; Allard J; Archer J; Barnes R; Bleakley A; Collet, T; Regan de Bere S. 2010. The transition from medical student to junior doctor: today's experiences of Tomorrow's doctors. *Medical Education*, 44 (5): 449-458.

Brewer, ML; Stewart-Wynne, EG. 2013. An Australian hospital-based student training ward delivering safe, client-centred care while developing students' interprofessional practice capabilities. *Journal of Interprofessional Care*. 27 (6): 482-488.

Brown, JS; Collins, A; Duguid, P. 1989. Situated Cognition and the Culture of Learning. *Educational Researcher*, 18 (1): 32-42.

Carlson, E; Wann-Hansson, C; Pilhammar, E. 2009. Teaching during clinical practice: Strategies and techniques used by preceptors in nursing education. *Nurse Education Today*, 29 (5): 522-526.

Carlson, E., Pilhammar, E., Wann-Hansson, C. 2010a. Time to precept: supportive and limiting conditions for precepting nurses. *Journal of Advanced Nursing*, 66 (2): 432-441.

Carlson, E; Pilhammar, E; Wann-Hansson, C. 2010b. "This is nursing": Nursing roles as mediated by precepting nurses during clinical practice, *Nurse Education Today*, 30 (8): 763-767.

Clouder, L. 2005. Caring as a "threshold concept": transforming students in higher education into (health) care professionals. *Teaching in Higher Education*, 10 (4): 505-517.

Creswell, J. 2007. *Qualitative inquiry & research design. Choosing among five approaches*. Thousand Oaks, CA: Sage.

Dahlborg-Lyckhage, E; Pilhammar-Andersson, E. 2009. Predominant discourses in Swedish Nursing, *Policy, Politics & Nursing Practice*, 10 (2): 163-171.

Dahlgren, LO; Emmelin, M; Winkvist, A. 2007. *Qualitative Methodology for International Public Health*. Umeå University.

Dancza, K; Warren, A; Copley, J; Rodger, S; Moran, M; McKay, E; Taylor, A. 2013. Learning experiences on role-emerging placements: An exploration from the students' perspective. *Australian Occupational Therapy Journal*, 60 (6): 427-435.

Dapremont, J; Lee, S. 2013. Partnering to educate: Dedicated education units. *Nurse Education Today*, 13 (5): 335-337.

Debyser, B; Grypdonck, MHF; Defloor, T, Verhaeghe STL. 2011. Involvement of inpatient mental health clients in the practical training and assessment of mental health nursing students: Can it benefit clients and students? *Nurse Education Today,* 31 (2): 198-203.

Denzin NK; Lincoln YS. 2008. Introduction: The discipline and practice of qualitative research. In NK. Denzin and YS. Lincoln (Eds.) *Collecting and Interpreting Qualitative Materials*. 3rd ed. Los Angeles, CA: Sage, pp.1-43.

Dilworth, S; Higgings, I; Parker, V; Kelly, B; Turner, J. 2013. Finding a way forward: A literature review on the current debates around clinical supervision. *Contemporary Nurse*, 45 (1): 22-33.

Elo S; Kyngäs H. 2008. The qualitative content analysis process. *Journal of Advanced Nursing*, 62 (1): 107-115.

Epstein, RM; Hundert, EM. 2002. Defining and assessing professional competence. *JAMA*, 287 (2): 226-235.

Fontana, A.; Frey, JH. 2008. The interview: From neutral stance to political Involvement. In NK. Denzin and YS. Lincoln (Eds.), *Collecting and Interpreting Qualitative Materials*. 3rd ed. Los Angeles: Sage, pp. 115-159.

Fyrenius, A; Silén, C; Wirell, S. 2007. Students' conceptions of underlying principles in medical physiology: an interview study of medical students understanding in a PBL curriculum. *Advances in Physiology Education*; 31 (4): 364-369.

Glazer, G; Erickson, JI; Mylott, L; Mulready-Shick, J; Banister, G. 2011. Partnering and leadership. Core requirements for developing a dedicated education unit. *The Journal of Nursing Administration*, 41 (10): 401-406.

Graneheim, UH; Lundman, B. 2004. Qualitative content analysis in nursing research: concepts, procedures and measures to achieve trustworthiness. *Nurse Education Today*, 24 (2): 105-112.

Hallin, K; Henriksson, P; Dalén, N; Kiessling, A. 2011. Effects of interprofessional education on patient perceived quality of care. *Medical Teacher*, 33 (1): e22-e26.

Hammersley M; Atkinson P. 2007. *Ethnography. Principles in practice*. 3rd edition. London: Routledge.

Hauer, KE; ten Cate, O; Boscardin, C; Irby, DM; Iobst, W; O'Sullivan, PS. 2013. Understanding trust as an essential element of trainee supervision and learning in the workplace. *Advances in Health Sciences Education Theory and Practice*. Epub and ahead of print, DOI 10.1007/s10459-013-9474-4.

Henderson, A., Eaton, E. 2013. Assisting nurses to facilitate student and new graduate learning in practice settings: What "support" do nurses at the bedside need? *Nurse Education Today*. 13 (3): 197-201.

Henderson, S. 2002. Factors impacting on nurses' transference of theoretical knowledge of holistic care into clinical practice. *Nurse Education in Practice*, 2 (4): 244-250.

Higgins, G; Spencer, RL; Kane, R. 2010. A systematic review of the experiences and perceptions of the newly qualified nurse in the United Kingdom. *Nurse Education Today*; 30 (6): 499-508.

Hodges, HF. 2011. Preparing new nurses with complexity science and problem-based learning. *Journal of Nursing Education*, 50 (1): 7-13.

Hsieh, HF; Shannon, SE. 2005. Three approaches to qualitative content analysis. *Qualitative Health Research*, 15 (9): 1277-1288.

Illeris, K. 2009. A comprehensive understanding of human learning. In K. Illeris (Ed.) *Contemporary theories of learning. Learning theorists ...in their own words*. London: Routledge, pp.7-20.

Illing, J. 2010. Thinking about research: frameworks, ethics and scholarship. In T. Swanwick (Ed.) *Understanding Medical Education. Evidence, Theory and Practice*. Oxford: Wiley-Blackwell, pp. 283-300.

Jha, V; Quinton, ND; Bekker, HL; Roberts TE. 2009. Strategies and interventions for the involvement of real patients in medical education: a systematic review. *Medical Education*; 43 (1): 10-20.

Johansson, UB; Kaila, P, Ahlner-Elmqvist, M; Leksell, J; Isoaho, H; Saarikoski, M. 2010. Clinical learning environment, supervision and nurse teacher evaluation scale: psychometric evaluation of the Swedish version. *Journal of Advanced Nursing*. 66 (9):2085-2093.

Jokelainen, M; Turunen H; Tossavainen, K; Jamookeeah, D; Coco, K. 2011. A systematic review of mentoring nursing students in clinical placements. *Journal of Clinical Nursing*, 20 (19-20): 2854-2867.

Karlgren, K. 2003. *Mastering the Use of Gobbledygook - Studies on the Development of Expertise Through Exposure to Experienced Practitioners' Deliberation on Authentic Problems*. Doctoral Ph.D. Thesis. Stockholm University / Royal Institute of Technology

Karlgren, K. 2013. Teknik och lärande – e-lärande – i medicinsk pedagogik. In C. Silén and K. Bolander Laksov (Eds*.), Att skapa pedagogiska möten i medicn och vård. Lund: Studentlitteratur*, pp. 195-236.

Kaufman, DM; Mann, KV. 2010. Teaching and learning in medical education: how theory can inform practice. In T. Swanwick (Ed.), *Understanding medical education. Evidence, theory and practice.* Oxford: Wiley-Blackwell, pp. 16-36.

Kegan, R. 2009. What "form" transforms? A constructive-developmental approach to transformative learning. In K. Illeris (Ed.) *Contemporary theories of learning. Learning theorists ...in their own words.* London: Routledge, pp. 35-52.

Kilminster, S; Zukas, M; Quinton N; Roberts, T. 2011. Preparedness is not enough: understanding transitions as critically intensive learning periods. *Medical Education*, 45 (10): 1006-1015.

Knowles, MS; Holton, EF; Swanson, RS. 2012. *The adult learner.* 7th ed. New York: Routledge.

Konkin, J; Suddars, C. 2012. Creating stories to live by: caring and professional identity formation in a longitudinal integrated clerkship. *Advances in Health Sciences Education*, 17 (4): 585-596.

Kreber, C. 2010a. Academics' teacher identities, authenticity and pedagogy. *Studies in Higher Education*, 35 (2): 171-194.

Kreber, C. 2010b. Courage and Compassion in the Striving for Authenticity: States of Complacency, Compliance and Contestation. *Adult Education Quarterly*, 60 (2): 177-198.

Kreber, C; McCune, V; Klampfleitner, M. 2010. Formal and implicit conceptions of authenticity in teaching. *Teaching in Higher Education*, 15 (4): 383-397.

Krippendorff, K. 2004. *Content analysis. An Introduction to Its Methodology*. 2nd ed. Thousand Oaks, CA: Sage.

Kristofferzon, ML; Mårtensson, G; Mamhidir, AG; Löfmark, A. 2013. Nursing students' perceptions of clinical supervision: The contributions of preceptors, head preceptors and clinical lecturers. *Nurse Education Today*, 33 (10): 1252-1257.

Kuper, A; Lingard, L; Levinson; W. 2008. *Critically appraising qualitative research. BMJ*, 337(aug07_3),a1035-.

Kvale, S; Brinkmann, S. 2009. *Interviews. Learning the Craft of Qualitative Research Interviewing*. 2nd ed. Los Angeles, CA: Sage.

Lachmann, H. 2013. *Contextual Activity Sampling – a method to develop clinical interprofessional education*. Doctoral Thesis, Karolinska Institutet, Department of Clinical Science and Education, Södersjukhuset. Available at: https://hdl.handle.net/10616/41700

Lachmann, H; Ponzer, S; Johansson; UB; Benson, L; Karlgren, K. 2013. Capturing students' learning experiences and academic emotions at an interprofessional training ward. *Journal of Interprofessional Care*, 27(2): 137-145.

Lachmann, H; Ponzer, S; Johansson, UB; Karlgren, K. 2012. Introducing and adapting a novel method for investigating learning experiences in clinical learning environments. *Informatics for Health and Social Care*, 37(3): 125-140.

Land, R; Rattray, J; Vivian, P. 2014. Learning in the liminal space: a semiotic approach to threshold concepts. *Higher Education*, 67 (2): 199-217.

Larsson, S. 2009. A pluralist view of generalization in qualitative research. *International Journal of Research & Method in Education*, 32 (1): 25-38.

Lauckner, H; Doucet, S; Wells, S. 2012. Patients as educators: the challenge and benefits of sharing experiences with students. *Medical Education,* 46 (10) 992-1000.

Lazarus, PA. 2007. Patients' experiences and perceptions of medical student candidates sitting in a finals examination. *Medical Teacher*, 29 (5): 484-489.

Levett-Jones, T; Lathlean, J. 2009. The ascent to Competence conceptual framework: an outcome of a study of belongingness. *Journal of Clinical Nursing*, 18 (20): 2870-2879.

Lilja Andersson, P; Edberg, AK. 2010. The nursing programme in the rear-view mirror. Interviews with Swedish nurses one year after their graduation. *Nurse Education Today*, 30 (8): 747-751.

Lowe, M; Kerridge, I; McPhee, J; Hart, C. 2008. Do patients have an obligation to participate in student teaching? *Medical Education*, 42 (3): 237-241.

Löfmark, A; Thorell-Ekstrand, I. 2013. Nursing students' and preceptors' perceptions of using a revised assessment form in clinical practice. *Nurse Education in Practice*. Epub and ahead print, DOI 10.1016/j.nepr.2013.08.015

Maben, J; Latter, S; Clark, JM. 2006. The theory-practice gap: impact of professional - bureaucratic work conflict on newly qualified nurses. *Journal of Advanced Nursing*, 55 (4): 465-477.

Mann K; Dornan, T; Teunissen PW. 2011. Perspectives on learning. In T. Dornan, K. Mann, A. Scherpbier and J. Spencer (Eds.). *Medical Education. Theory and Practice*. Edinburgh: Churchill Livingstone Elsevier, pp. 17-38.

Mann, K; Gordon, J; MacLeod, A. 2009. Reflection and reflective practice in health professions education: a systematic review. *Advances in Health Sciences Education Theory and Practice*, 14 (4): 595-621.

Marton, F; Booth S. 1997. *Learning and Awareness*. London: Routledge.

Mayer RE. 2002. Rote versus meaningful learning. *Theory into Practice*, 41 (4): 226-232.

McCune, V. 2009. Final year biosciences students' willingness to engage: teaching-learning environments, authentic learning experiences and identities. *Studies in Higher Education*, 34 (3): 347-61.

McKenna, LG; Green, C. 2004. Experiences and learning during a graduate nurse program: an examination using a focus group approach. *Nurse Education in Practice*, 4(4): 258-263.

McKown, T; McKeon, L; Webb, S. 2011. Using Quality and Safety Education for Nurses to Guide Clinical Teaching on a New Dedicated Education Unit. *Journal of Nursing Education*, 50 (12): 706-710.

McLachlan, E; King, N; Wenger, E; Dornan, T. 2012. Phenomenological analysis of patients experiences of medical student teaching encounters. *Medical Education,* 46 (10) 963-973.

Meyer, JHF; Land R. 2005. Threshold concepts and troublesome knowledge (2): Epistemological considerations and a conceptual framework for teaching and learning. *Higher Education*, 49 (3): 373-388.

Mezirow, J. 2009. An overview on transformative learning. In K. Illeris (Ed.) *Contemporary theories of learning. Learning theorists ...in their own words*. London: Routledge, pp. 90-105.

Mogensen, E; Thorell Ekstrand, I; Löfmark, A. 2010. *Klinisk utbildning i högskolan – perspektiv och utveckling inom verksamhetsförlagd utbildning*. Lund: Studentlitteratur.

Monrouxe, LV; Rees, CE; Bradley, P. 2009 The Construction of Patients' Involvement in Hospital Bedside Teaching Encounters. *Qualitative Heath Research*, 19 (7) 918-930.

Morgan, A; Jones, D. 2009. Perceptions of service user and carer involvement in healthcare education and impact on students' knowledge and practice: A literature review. *Medical Teacher*, 31 (2) 82-95.

Morris, C; Blaney, D. 2010. Work-based learning. In T. Swanwick (Ed.) *Understanding Medical Education. Evidence, Theory and Practice*. Oxford: Wiley-Blackwell, pp.69-82.

Moscato, SR; Miller, J; Logsdon, K; Weinberg, S; Chorpenning, L. 2007. Dedicated education unit: An innovative clinical education model. *Nursing Outlook*, 55 (1): 31-37.

Moscato, SR; Nishioka, VM; Coe, MT. 2013. Dedicated Education Unit: Implementing an Innovation in Replication Sites. *Journal of Nursing Education*, 52 (5): 259-267.

Mulready-Shick, J., Flanagan, K.M., Banister, G.E., Mylott, L., Curtin, L.J. 2013. Evaluation Dedicated Education Units for Clinical Education Quality. *Journal of Nursing Education*, 52 (11): 606-614.

Mulready-Shick, J; Kafel, KW; Banister, G; Mylott, L. 2009. Enhancing Quality and Safety Competency Development at the Unit Level: An Initial Evaluation of Student Learning and Clinical Teaching on Dedicated Education Units. *Journal of Nursing Education*, 48 (12): 716-719.

Nash, R; Lemcke, P; Sacre S. 2009. Enhancing transition: An enhanced model of clinical placement for final year nursing students. *Nurse Education Today*, 29 (1): 48-56.

Newton, JM; McKenna, L. 2007. The transitional journey through the graduate year: A focus group study. *International Journal of Nursing Studies*; 44 (7): 1231-1237.

Nilsson, AF; Silén, C. 2010. You Have to Know Why: The Influence of Different Curricula on Nursing Students' Perceptions on Nursing. *Scandinavian Journal of Educational Research*, 54 (6):631-642.

O'Brien, F; Mooney, M; Glacken, M. 2008. Impressions of nursing before exposure to the field. *Journal of Clinical Nursing*, 17 (14): 1843-1850.

Omansky, GL. 2010. Staff nurses' experiences as preceptors and mentors: an integrative review. *Journal of Nursing Management*. 18 (6): 697-703.

Patton, MQ. 2002. *Qualitative Research and Evaluation Methods*. 3rd edition. Thousand Oaks, CA: Sage.

Pedersen, B; Sivonen, K. 2012. The impact of clinical encounters on student nurses' ethical caring. *Nursing Ethics*, 19 (6): 838-848.

Pelling, S; Kalen, A; Hammar, M; Wahlström O. 2011. Preparation of becoming members of health care teams: findings from a 5-year evaluation of a student interprofessional training ward. *Journal of Interprofessional Care*, 25 (5): 328-332.

Pintrich, PR. 2002. The Role of Metacognitive Knowledge in Learning, Teaching and Assessing. *Theory into Practice*, 41 (4): 219-225.

Price, SL. 2009. Becoming a nurse: a meta-study of early professional socialization and career choice in nursing. *Journal of Advanced Nursing*, 65 (1): 11-19.

Ralph, E; Walker, K; Wimmer, R. 2009. Practicum and Clinical Experiences: Postpracticum Students' Views. *Journal of Nursing Education*; 48 (8): 434-440.

Rance, K; Grealish, L. 2007. Nursing students' perceptions of learning in the clinical setting of the Dedicated Education Unit. *Journal of Advanced Nursing*, 58 (2): 171-179.

Reeves, S; Peller, J; Goldman, J., Kitto, S. 2013. Ethnography in qualitative educational research: AMEE Guide No. 80. *Medical Teacher,* 35 (8): e1365-e1379.

Rich, KL; Nugent, KE. 2010. A United States perspective on the challenges in nursing education. *Nurse Education Today*, 30 (3): 228-232.

Ruth-Sahd, LA. 2011. Student nurse dyads create a community of learning: proposing a holistic clinical education theory. *Journal of Advanced Nursing*. 2011; 67(11): 2445-2454.

Rydlo, C. 2010. *Fighting for the otherness – Student nurses' lived experiences of growing in caring*. Doctoral Thesis. Örebro Studies in Care Sciences, No. 30, Örebro University, Örebro.

Salminen, L; Stolt, M; Saarikoski, M; Suikkala, A; Vaartio, H; Leino-Kilpi, H. 2010. Future challenges for nursing education – A European perspective. *Nurse Education Today*, 30 (3): 233-238.

Sandelowski, M. 2000. Whatever Happened to Qualitative Description*? Research in Nursing & Health,* 23 (4): 334-340.

Savin-Baden, M; Howell Major, C. 2013. *Qualitative research. The essential guide to theory and practice*. London: Routledge.

Sedgwick, M., Harris, S. 2012. A Critique of the Undergraduate Nursing Preceptorship Model. *Nursing Research and Practice*. Volume 2012, Article ID 248356, 6 pages. DOI 10.1155/2012/248356.

Segesten, K. 2011. *Att utbildas till sjuksköterska. Perspektiv på lärande*. Stockholm: Natur & Kultur.

SFS 1992: 1434. 1992. Högskolelagen (The Higer Education Act). Utbildningsdepartementet. Stockholm. Available at http://www.notisum.se/rnp/sls/lag/19921434.htm Downloaded 13th of February 2014.

SFS 1993:100. 1993. Högskoleförordningen (The Higher Education Ordinance). Utbildningsdepartementet. Stockholm. Available at http://www.notisum.se/rnp/sls/lag/19930100.htm Downloaded 13th of February 2014.

Silén, C. 2013. Lärande i verksamhetsförlagd utbildning, VFU. In C. Silén and K. Bolander Laksov (Eds.), *Att skapa pedagogiska möten i medicin och vård*. Lund: Studentlitteratur, pp. 77-116.

Silén, C., Kiessling A., Spaak, J., Henriksson, P. 2011. The experience of physician supervisors with clerkship students: a qualitative study *International Journal of Medical Education*. 2: 56-63.

Solvoll, BA; Heggen, KM. 2010. Teaching and learning care – Exploring nursing students' clinical practice. *Nurse Education Today*, 30 (1):73-77.

Spencer, J; Blackmore, D; Heard, S; McCrorie, P; McHaffe, D; Scherpbier, A; Sen Gupta, T; Singh, K; Southgate, L. 2000. Patient-orientated learning: a review of the role of the patient in the education of the medical students. *Medical Education,* 34 (10): 851-857.

Spencer, J; McKimm J. 2010. Patient involvement in medical education. In Swanwick T (Ed.) *Understanding Medical Education. Evidence, Theory and Practice*. Oxford: Wiley-Blackwell pp. 181-194.

Staun, M; Bergström, B; Wadensten, B. 2010. Evaluation of a PBL strategy in clinical supervision of nursing students: Patient-centred training in student-dedicated treatment rooms. *Nurse Education Today*, 30 (7): 631-637.

Stockhausen, LJ. 2009. The patient as experience broker in clinical learning. *Nurse Education in Practice*, 9 (3): 184-189.

Suikkala, A; Leino-Kilpi, H. 2005. Nursing student – patient relationship: Experiences of students and patients. *Nurse Education Today*, 25 (5): 344-354.

Suikkala, A; Leino-Kilpi, H; Katajisto J. 2008. Factors related to the nursing student-patient relationship: The students' perspective. *Nurse Education Today*, 28(5): 539-549.

Teunissen, PW; Wilkinson, TJ. 2011. Learning and teaching in workplaces. In T. Dornan, K. Mann, A, Scherpbier, J, Spencer (Eds.) *Medical Education. Theory and Practice*. Edinburgh: Churchill Livingstone Elsevier, pp. 193-209.

The National Board of Health and Welfare. 2005. *Kompetensbeskrivning för legitimerad sjuksköterska*. Description of Competence for Registered Nurses (in Swedish). Available at: http://www.socialstyrelsen.se/Lists/Artikelkatalog/Attachments/9879/2005-105-1_20051052.pdf. Downloaded 13th of February 2014.

Thorkildsen, K; Råholm, MB. 2010. The essence of professional competence experienced by Norwegian nurse students: A phenomenological study. *Nurse Education in Practice*, 10 (4): 183-188.

Towle, A; Godolphin, W. 2011. A meeting of experts: the emerging roles of non-professionals in the education of health professionals. *Teaching in Higher Education;* 16 (5): 495-504.

Tsimtsiou, Z; Kerasidou, O; Efstathiou, N; Papaharitou, S; Hatzimouratidis, K; Hatzichristou D. 2007. Medical students' attitudes toward patient-centered care: a longitudinal survey. *Medical Education*, 41 (2): 146-153.

Warmington, S. 2011. Practising engagement: Infusing communication with empathy and compassion in medical students' clinical encounters. *Health*, 16 (3): 327-342.

Warne T, Johansson UB, Papastavrou E, Tichelaar E, Tomietto M, van den Bossche K, Moreno, MFV; Saarikoski, M. 2010. An exploration of the clinical learning experience of nursing students in nine European countries. *Nurse Education Today*, 30 (8): 809-815.

Warne, T; McAndrew, S. 2008. Painting the landscape of emotionality: Colouring in the emotional gaps between the theory and practice in mental health nursing. *International Journal of Mental Health Nursing*, 17 (2): 108-115.

Watzlawick, P; Bavelas, JB; Jackson, DD. 2011. *Pragmatics of Human Communication: A Study of Interactional Patterns, Pathologies and Paradoxes*. New York, NY: Norton.

Wenger, E. 2009. A social theory of learning. In K. Illeris (Ed.) *Contemporary theories of learning. Learning theorists ...in their own words.* London: Routledge, pp. 209-218.

World Medical Association. 1964. Declaration of Helsinki. *Ethical Principles for Medical Research Involving Human Subjects*. Available at http://www.wma.net/en/30publications/10policies/b3/ Downloaded 13th of February 2014.

Öhlén, J; Furåker, C; Jakobsson, E; Bergh, I; Hermansson, E. 2011. Impact of the Bologna process in Bachelor nursing programmes: The Swedish case. *Nurse Education Today*, 31 (2): 122-128

APPENDIX

Interview guide used in *Study* I and *Study* II

Opening

- You have now finished you clinical practice at the clinical education ward. How would sum up these six weeks?
- Tell me about your expectations before this clinical practice.

Main domains

- Tell me about your encounters with
    - ✓ patients
    - ✓ supervisors
    - ✓ peer students
    - ✓ physicians, physiotherapists, occupational therapists, nutritionists and other health-care professionals

    at the ward during your clinical practice.

- Tell me about the worst thing that happened during your clinical practice.
- Tell me about the best thing that happened during your clinical practice.

Closure

- Is there anything you would like to add?

STUDIES I – IV