

DEPARTMENT OF WOMEN'S AND CHILDREN'S HEALTH  
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**NURSES IN PAEDIATRIC CARE:  
COMPETENCE, PROFESSIONAL IDENTITY  
AND RESEARCH UTILIZATION**

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*“As long as you keep climbing there will be stairs, they will magically appear under  
your climbing feet”.*  
Franz Kafka, “advocates”



## ABSTRACT

Paediatric health care is becoming highly specialized and there is a need of nurses with specialist knowledge in the field. A large turnover of personnel and shortage of specially trained paediatric nurses have resulted in employing newly graduated and inexperienced nurses which further contributes to a decrease in professional competence. Development of professional competence is thus a process that has to be present at all times and must be evaluated continuously.

The aim of this thesis was to identify how competence levels can be shown by describing and analyzing how nurses employed in paediatric care describe their nursing role and how they evaluate their professional level and attitudes to research utilization. Furthermore, we wanted to analyze qualitative differences between nurses with diverse formal education and experiences.

**Study I:** When 18 newly graduated and newly employed nurses described what they included in the concepts of responsibility, management of daily and rapidly changing situations and reflection, the results, analysed with qualitative content analysis, showed that nurses seemed to be fully aware of their responsibility regarding patients' well-being. The moral responsibilities, i.e. to act as the patient's "advocate" and protect patient's personal integrity, was also evident. The nurses emphasized the need of time and space for reflection, but also time to acquire the necessary knowledge for providing optimal nursing.

**Study II:** Fifty-six newly graduated and newly employed nurses at two children's hospitals responded in written form to the two questionnaires; Professional Self Description Form (PSDF) (21 items in total including empathy, flexibility, ability to act etc.), and Barriers Scale (29 items in total concerning perceived barriers to research utilization). The results showed that in PSDF the nurses scored highest in compassion, ambition and sensitivity. The lowest scores were found in preparedness to act and problem-solving ability, leadership and discriminating capacity. In the Barriers Scale the nurses perceived the lowest barriers in the affirmations pertaining to themselves as nurses and the highest barriers within the areas concerning the organization.

**Study III:** We have compared newly graduated nurses who had received "traditional" introductory training and had worked for two years at a children's hospital (Controls, n=36) with nurses going through a one year trainee programme (Trainees, n=42) and with paediatric nurses with specialist education (Specialists, n=35), using the same questionnaire as in study II. The results showed that the control nurses rated themselves higher in the PSDF description of persistence compared to the other two groups. No other differences were found. In the Barriers Scale the specialists scored higher barrier in the affirmations pertaining to themselves as nurses, especially in that the nurse is unwilling to test new ideas, that there are not enough experienced colleagues with whom to discuss research results, and that the administration does not allow implementation of research results.

**Study IV:** When comparing nurses with diverse formal education and experiences concerning qualitative differences when reasoning about a paediatric case the results showed some disparities. The study was based on six recorded group discussions of a fictive but realistic paediatric case and was analysed by a qualitative latent content analysis.

Out of the themes found: child's social situation, child abuse and the child's illness, qualitative differences emerged in how the nurses discussed the case. Three separate approaches were identified: a task-oriented, an action-oriented and an hypothesis-oriented, the latter being evident in the two groups comprised of nurses with specialist education. Between the two other groups, novice and experienced nurses, no differences were shown in how they discussed the case.

**In conclusion:** Newly graduated nurses are aware of their responsibility as nurses in general. Self-evaluation of "professional self" and barriers to research utilization are quite similar and independent of professional experience and knowledge. Nurses with long experience and specialist education have a different approach in how they discuss a fictive but realistic case compared to nurses with lower educational level. Thus, the importance of experience per se for the development of competence is still an open question. Working experience in combination with further, specialist education seems to be of importance in the development of professional competence in paediatric care.

*Key words: Novice nurse, newly graduated nurses, responsibility, changing situations, reflection, professional role, professional development, self description, research utilization, paediatric care,*



## LIST OF PUBLICATIONS

- I. **Andersson N.**, Cederfjäll C., Klang B. (2004) The novice general nurses' view of working in a paediatric setting: a Swedish experience. *Nurse Education in Practice* 5, 191-197.
- II. **Andersson N.**, Cederfjäll C., Jylli L., Nilsson Kajermo K., Klang B. (2007) Professional roles and research utilization in paediatric care: Newly graduated nurses' experiences. *Scandinavian Journal of Caring Sciences* 21, 91-97.
- III. **Andersson N.**, Jylli L., Nilsson Kajermo K., Klang B (2007) Nurses in paediatric care: Self-reported professional self and perceived research utilization. *Scandinavian Journal of Caring Sciences* 21 (4) 426-33.
- IV. **Andersson N.**, Klang B., Petersson G. Nurses in paediatric care show qualitative differences in reasoning depending on different educational and experiential background. Submitted.

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# 1 INTRODUCTION

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## 1.1 PAEDIATRIC CARE

Health care is becoming increasingly specialized and within, for example, paediatric care, there is a need to employ nurses with special training in paediatric nursing. Nurse's competence is of particular interest in the highly specialized pediatric care because it is essential to master the specific knowledge required to assess, plan, evaluate and implement nursing interventions (Barnsteiner et al. 2002) as well as to cooperate with the children and their families (Hallstrom and Elander 2005).

Nurses also play a key role as advocates for the children when decisions about their health are taking place (Ibid.). A large turnover of personnel and shortage of specially trained nurses has, however, led to employment of newly graduated nurses without any special training or experience. This situation is also common in many other areas within health care and not only in Sweden (Johnson and Copnell 2002).

The goal for nurse education in Sweden is to produce nurses that have the competence and skills to sustain high quality in nursing care (Bentling 1992). In Sweden nurses are further required by law to carry out their work based on science and best practice (SOFSS 1998:531), and to ensure good quality in the care conducted (SOFSS 1996:24). The nurse therefore needs knowledge, practical skills, self-esteem, ethical awareness but also critical thinking (SFS 1992:1434). The nurse should be independent in decisions about nursing care and act supported by best available research evidence. This further requires specific expertise but also an organization where learning is prioritized and developed (Kitson et al. 1998, Timpson 1998, Eraut 2004, Tynjala 2008). One form for the latter could be mentoring to assist the nurse in getting into the work community and the specific areas of knowledge that each speciality covers (Benner et al. 1996, Ramritu and Barnard 2001, Estabrooks et al. 2005, Bjorkstrom et al. 2006, Khomeiran et al. 2006, Salonen et al. 2007).

Identification of nurse competence is therefore of specific interest in paediatric care, in the planning of support and training of the individual nurse to be able to manage the workload at clinical wards in the best possible way.

## 2 BACKGROUND

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### 2.1 COMPETENCE AND LEARNING

The National Board of Health and Welfare (Socialstyrelsen 2005) defines competence as “the ability and will to perform a task by applying knowledge and skills”. Knowledge is a product of the process of thinking and depends on the world that is external to the individual (Marton 1986). Knowledge is assumed to be relational and to involve the continual interrelationship between thoughts, experience and a phenomenon (Svensson 1984, Svensson 1997). Knowledge is further defined as fact (know that), understanding (know why), skills (know how) and be familiar with (know what) (Granberg 2004). Knowledge is therefore included in the concept of competence as it can serve as a tool for a person to competently solve a task (SOFS 1995:15).

In a socio-cultural perspective, learning is seen as how individuals acquire information, skills and understanding to achieve the ability to determine what is relevant in a given context. The socio-cultural perspective is a question of how individuals acquire the resources to think and carry out practical projects that are parts of the culture and environment they belong to (Säljö 2005). This view is supported by Eraut (2004), who also assumes that learning occurs in the context where it is taking place and knowledge can be seen as both culturally and socially situated. Eraut further sees cultural knowledge as ‘uncodified’ as people often are unaware of how it influences their own behaviour. ‘Codified’ knowledge, on the other hand, is the academic knowledge, which is the result of education programmes.

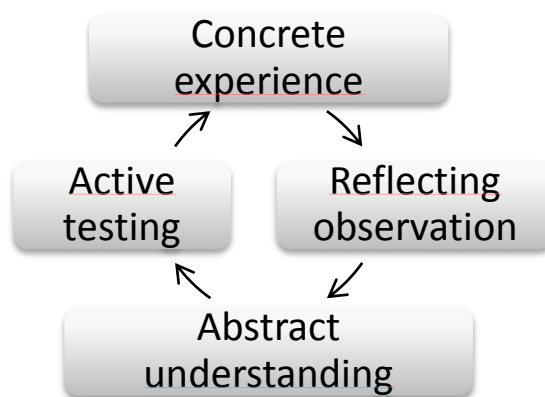
Learning as a reflective process can be described as when a practitioner e.g. recognizes a unique or new situation, which he/she cannot handle solely by using theories or professional knowledge from the past (Schön 1987). To deal competently with such a situation he/she must make the decisions by inventing and testing new strategies. Development of knowledge can therefore be described as a process within an applied discipline where participants broaden their practical knowledge through experience over time (Eraut 2004). This process should be combined with reflection (Schön 1987). The author suggests that a person who has learnt a task is not always aware of it. Only when something unexpected happens, one has to start looking at the occasion in a new way. Work-related situations can therefore be seen as a performance period in an environment which changes and leads to a continuous changing of plans.

A competent behaviour is not only to be able to act correctly but also to understand the ongoing situation. To interpret an ongoing situation, employees need time to think about what has to be done and communicate how to plan, monitor and solve problems at work (Eraut 2004).

The integration between theory and practice in work experience is essential to support reflection both *in* and *on* the action to provide learning (Schön 1987, Tynjala 2008) (see also Öhrling 2000, Huggins 2004, Furaker 2008). Thinking might even be more important than the action per se in the learning process (Tynjala 2008).

Out of personal experiences and theory, three concepts of knowledge have been identified: procedural knowledge, ward cultural knowledge and reflexive knowledge when nurses integrate their knowledge into practice situations (Mantzoukas and Jasper 2008). One example of this is how an expert nurse is able to identify subtle physiological changes in a specific caring situation. The expert nurse can recognize signs of a threatening state of shock before visible changes in pulse and blood pressure appear. This ability is directly derived from many years of observing patients and nursing practice (Benner 1984). A newcomer in a team has to learn and adapt to the way in which people in the team perform different tasks, because nurses rely more on knowledge generated within their communities of practice than on knowledge based on research (Wenger 1998, Estabrooks 2003, Sinatra and Mason 2007).

Kolb (1984) describes the way the learning process develops in an individual as a “learning cycle” (Figure 1). Learning is thus regarded as a process working in two opposite directions, i.e. testing what we learn in practice and converting “practice” to learning. Learning starts with an experience, which is linked into people’s lives including emotions and cognitive processes. Phase two includes reflection on the experience, which in turn creates a mental image and a wish to connect the new knowledge to theory. In the third phase concepts are formed. In this phase we also practice new skills and learn crafts. The fourth and final step involves active experimentation - to test and control the acquired knowledge. This process is continuous (Figure 1).



**Figure 1.**  
Adapted from Kolb’s learning cycle (1984)

Kolb’s model indicates that both individual and social processes are present in the understanding of context (Sinatra and Mason 2007). Individual learning can thus be regarded as the way a person “finds” a tool and then forces himself/herself to use it (Säljö 2005). This is further discussed in the development of nursing knowledge, which should be viewed in conjunction with practice itself, as practice involves both use and gain of new knowledge (Kim1999).

The learning process resembles a process of participation, which often legitimately starts in the periphery but gradually increases in engagement and complexity (Lave and

Wenger 1991). Both formal and informal learning are a prerequisite for lifelong learning, but also require a 'learning organization', i.e. an organization knowing how to support clinical development (Eraut 2004).

### **2.1.1 In conclusion**

From a social-cultural perspective, the community-based emphasis on integration in between social practitioners' learning can be seen as something that is built into the function of societies. In other words, learning is unavoidable for individuals. The participation in various activities yields experiences with life-long impact, positive or negative.

## **2.2 PROFESSIONAL IDENTITY AND EVIDENCE-BASED PRACTICE**

To understand how knowledge and competence are expressed in real life we need to recognize what represents the subjective, inter-subjective and the objective world of how people in different context construct knowledge in themselves and the social context in which they are involved in (Jovchelovitch 2007). Jovchelovitch claims that "It is the human capacity for critique, for revising errors, from learning from previous mistakes and from the experience of others, through communication, reflection and self-critique, which provides both the antidote for the isolation and loneliness proposed by relativism and at the same time the elements for the growth and development of all knowledge" (Ibid. p.182).

The development of a professional identity can be described as a process of balancing between external and internal attributes of professionalism (Ohlen and Segesten 1998) but also as an integral part of the nurse's personal identity (Carlsen et al. 1984). The identity as a nurse can be seen as both subjective and objective. The subjective part starts from the self-esteem and the evaluation of me being a nurse, what it means to act as and be a nurse or the perception of the professional me. The objective part is the picture others have of the individual as a nurse (Dagenais and Meleis 1982, Fagermoen 1997).

A profession is further described as an occupational monopoly and a monopoly of knowledge (Bentling 1992), and comprises a problem-solving process, an ability to evaluate one's knowledge and the capacity to rational and well substantiated decision-making (Forslund 1989). This applies equally to the nursing profession. Swick (2000) however, believed that professional autonomy could be gained only if the profession meets the expected responsibilities.

Many studies have shown that there are associations between how nurses evaluate their own professional identity and the quality of care given (Meleis and Dagenais 1981, Kelly 1992b, Fagermoen 1997, Randle 2003). In interviews of nurses two and five years after graduation the nurses' perspectives on their roles showed a transition over time (Fagerberg 2004).

The four perspectives of "having the patient in focus", "being a team leader", "preceptor ship" and "task orientation" also seemed to be more integrated at the five year interview compared to the content described shortly after graduation (Fagerberg

2004, Fagerberg and Kihlgren 2001). Similar perspectives were found by Bjorkstrom and co-workers (2006), i.e. “to do good for others”, “to be competent and skilled” and “to seek professional development” as important areas described by both novice nurse students just before graduation and three to five years after graduation. When following professional development in newly graduated nurses during two years in the profession, the nurses became more experienced, which was understood as the nurses' life paradigms were following them and created their professional identity as nurses (Fagerberg and Kihlgren 2001) or described by others as “finding one’s niche” (Hallin and Danielson 2008). This implies that both the individual nurse and the environment interacted in the shaping of the professional identity (Fetzer 2003). When integrating the “self” in the new professional role a learning environment is important (Lewis et al. 1998, Walter et al. 1999, Fagerberg and Kihlgren 2001). The professional identity has to do with how nurses conceptualize to be a nurse. The process is guided by beliefs and values in interactions and actions. When the nurse has developed a professional identity it can be rebuilt again even if the existing role collapses. This can happen when changing workplace or speciality (Ohlen and Segesten 1998).

In the nurse profession nurses are required by law to carry out their work based on science and best practice as well as to ensure quality of the care conducted (SOFSS 1996:24). To achieve this one has to be aware of how context, organization and management affect implementation of evidence in practice (McCormack et al. 2002, Rycroft-Malone et al. 2004, Gerrish and Clayton 2004).

It is known that nurses prefer to retrieve information and knowledge through personal contacts instead of seeking formal information through for example the Internet (Estabrooks 2003). One explanation to this behaviour could be that nurses are frequently interrupted by other tasks and cannot prioritize seeking for evidence during work time. Similar results were recently found by Rolfe and co-workers (2008), when respondents were asked about sources for evidence on a weekly basis. Almost all nurses said that they first reflected on their own experience and secondly asked their colleagues for advice. Other important sources were their own intuition and reflection.

### **2.2.1 In conclusion**

The concepts of competence, learning, and professional identity are complex phenomena. The identity of a professional role includes both internal and external aspects, which have to be taken in consideration in the specific role as a nurse. One aspect is the learning process per se as an ongoing internal process in an external context. Another aspect is to describe differences in how people conceive experience, perceive or understand different aspects of specific phenomena at a specific moment in life. The comprehensive aim is thus to understand different qualitative aspects of knowledge and competence.

The main questions that arise in this thesis are therefore how personal/individual knowledge and competence manifests itself in paediatric nurses with different experiences and education and how to provide guidance and design supportive measures helping them to cope with the caring problems they face on a daily basis.

## **3 AIM**

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### **3.1 OVERALL AIM**

The overall aim of the thesis was to gain a deeper understanding of how the nurse's personal/individual knowledge and competence is manifested. The focus was on the perception of the nursing role in general, the professional level and attitudes to research utilization, and if there was any qualitative differences between nurses with diverse formal education and experiences.

### **3.2 SPECIFIC QUESTIONS**

1. How do newly graduated nurses describe the nursing profession with regard to their responsibility, management of daily and rapidly changing situations and reflection? (Study I)
2. How do nurses in paediatric care evaluate their professional self and perceived barriers in research utilization? (Study II)
3. Are there any differences in nurses' own evaluations of professional self and perceived barriers towards using evidence in nursing between nurses with different formal competencies? (Study III)
4. How can qualitative differences among nurses with diverse formal education and experiences be identified? (Study IV)



## 4 MATERIAL AND METHODS

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### 4.1 DESIGN

The thesis consists of four studies. The design is descriptive and comparative with both qualitative and quantitative methods to get an understanding of how the concepts of knowledge and competence can be described and identified. Qualitative and quantitative methods can be seen as two different ways of exploring the world. Choosing one or the other is based on the research questions (Kvale 1996). Thus the present research area will be viewed from different, complementary perspectives (Hallberg 2002).

The quantitative focus has its roots in “quanta” which refers to something that has mass, weight and volume. It can often be used to describe or compare groups out of the assumption that human beings are partly different from other beings.

The qualitative focus has its roots in ‘qualia’, meaning the subjective qualities derived out of the assumption that human beings are unique beings (Ibid.). Study I is a descriptive qualitative study of written text. Study II and III are descriptive quantitative studies including two questionnaires. Study IV is a qualitative study based on recorded group discussions.

**Table I. Focus of the four studies**

Study I	Study II and III	Study IV
Nurses’ view on the role as a nurse	Nurse competence and attitudes as individuals	Nurse competence as individuals in context

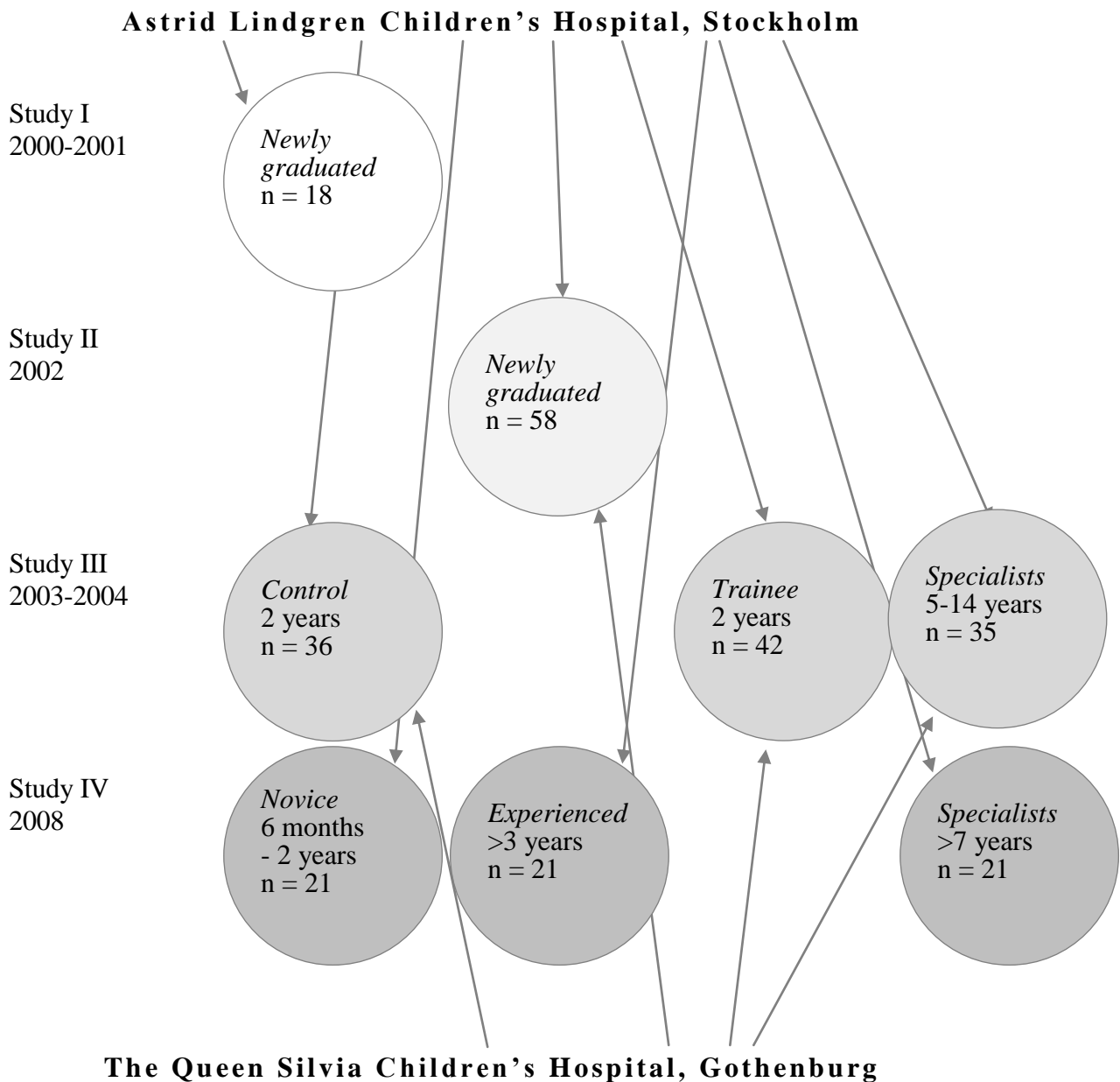
### 4.2 PARTICIPANTS

The studies were performed between the years 2000 and 2009:

- Study I (2000-2001)
- Study II (2002-2004)
- Study III (2003-2004)
- Study IV (2008-2009)

In studies I and IV the participants were employed at Astrid Lindgren Children’s Hospital.

In studies II and III the participants consisted of nurses employed at two Children’s University Hospitals: The Queen Silvia Children’s Hospital in Gothenburg and Astrid Lindgren Children’s Hospital in Stockholm, Sweden (Figure 2).



**Figure 2.**  
**Participants from the two paediatric hospitals**

**Study I:** All the nurses attending a trainee programme at a children's hospital were invited to participate in the study and they all agreed to participate (n=18). In the trainee programme the nurses received theoretical and practical support during the first year of their employment. All the nurses were newly graduated.

**Study II:** Inclusion criteria were that nurses were newly graduated and had no specific education in paediatric care and had been working as nurses about one month. These nurses were invited consecutively. Of the invited 61 nurses, 56 agreed to participate (Table I). Of these 56 nurses, 46 were already participating in a one-year trainee-programme.

**Study III:** Three groups of nurses from two children’s hospitals were included: Trainee group, Control group and Specialist group. 1. The trainee group (n=42) consisted of nurses who had participated in a one-year trainee programme and who were still working as nurses in paediatric care two years after graduation. 2. Nurses without a trainee programme were invited consecutively as the control group (n=36). Inclusion criteria for these nurses were that they had no specific education in paediatric care and had been working as nurses about two years (n=36). The specialist group (n=36) was recruited from two ongoing specialist education programmes at the two involved hospitals.

**Study IV:** Three groups of nurses with different competencies were included: (1) newly qualified nurses, having six months to about two to three years of working experience (n=7; novice), (2) nurses with more than three years of working experience (n=7; experienced), (3) nurses with specialist education and working experience more than five years (n=7; specialists).

The specifics of the participating nurses are presented in Table II.

**Table II. Demographic data: year of the studies, median and range age, sex, and years of working experience as nurses**

Study	Year of study	Age median/range	Sex male/female	Professional experience
Study I	2000-2001	27/23-39	0/18	0
Study II	2002	28/22-48	3/53	0
Study III Control Trainee Specialists	2003-2004	29/24-47 27/25-50 33/25-49	2/34 2/40 1/34	2 2 5-14
Study IV Novice Experienced Specialists	2008-2009	29/24-32 32/27-39 40/30-59	0/21 0/21 0/21	0.5-2 4-7 7-25

### 4.3 DATA COLLECTION

In qualitative studies data analysis can be either manifest or latent. A text often involves multiple meanings and the interpretation of the text depends on the research question.

In some texts the focus is on the visible, obvious components and in others on the underlying meaning (Graneheim and Lundman 2004).

### **4.3.1 Qualitative studies (Study I and IV)**

#### *4.3.1.1 Concept definition (Study I)*

The nurses were requested to describe, in writing, what they included in the concepts of 1) responsibility, 2) management of daily and rapidly changing situations and 3) reflection.

#### *4.3.1.2 Case discussion (Study IV)*

Recorded case discussions from three competence groups were used (n=6). The nurses were requested to discuss a fictive, but realistic paediatric case.

### **4.3.2 Quantitative studies (Study II and III)**

#### *4.3.2.1 Instruments*

The Professional Self-Description Form (PSDF) consists of 21 items in which the respondents rate themselves in relation to others in the same profession. The instrument is developed from the Nurse Self Description Form (NSDF), which examines professional competence in connection with autonomy, evidence-based preparation, development and research, adaptability, altruism, capacity of empathy and professional engagement (Dagenais and Meleis 1982).

The PSDF was developed in order to measure creative performance among National Aeronautics and Space Administration (NASA) scientists in the USA, and was produced as one of many psychological tests for use in studying creative performance among their scientists and engineers. The original instrument has been validated for nurses in the USA (Ingmire 1973, Dagenais and Meleis 1982). The questionnaire has been further translated and tested in studies on different groups of health care professionals in Sweden (Olsson and Gullberg 1987, Andreasson et al. 1992). The respondents are requested to rate themselves in comparison with others in a similar position (profession) on a seven-point Likert-type scale, scored from one to seven, labelled from "Definitely less than most in a similar position" (1) to "Rarely equalled" (7).

In a factor analysis carried out by (Gullberg 1996) four sub-scales were identified concerning the following factors:

- Professionalism (11 items)
- Scientific Approach (4 items)
- Empathy (4 items)
- Discernment (2 items)

The Barriers scale consists of 29 items and measures the extent to which the respondents agree about the presence of the specific barrier items. The Barriers scale was developed by Funk and colleagues (1991) to measure barriers and facilitators to research utilization. The questionnaire has been translated and tested in Swedish

(Nilsson Kajermo et al. 1998). The respondents rate the items on a four-point Likert scale from "no extent" (1) to "a great extent" (4). A "no opinion" response is also offered. The higher score, the closer to the agreement with the statement. The "no opinion" responses are not part of the scoring.

In a factor analysis, four sub-scales were identified concerning the following factors:

- The adopter-the nurse's research values, skills and awareness (8 items).
- The organization- setting barriers and limitations (8 items).
- The innovation- qualities of the research (6 items).
- The communication- presentation and accessibility of the research (6 items) (Funk et al. 1991).

One further item, "Research report/articles are written in English thus constituting a barrier" is included in the Swedish version (Nilsson Kajermo et al. 1998).

#### **4.4 PROCEDURE**

All the nurses included in the study received both written and verbal information about the aims of the studies. They were guaranteed confidentiality by coding every individual. They were also given a written and verbal request about participation and information about their rights to interrupt their participating with no consequences.

In study I, the participants were informed orally and in writing by the researcher when attending a one-year trainee programme in a paediatric hospital.

In studies II and III, the two questionnaires as well as a reply envelope were sent to the participants including a covering letter describing how to fill in the questionnaires and the purpose of the study. They were also reminded by e-mail or by a telephone call.

In study IV, all head nurses in a highly specialized paediatric hospital were contacted by e-mail. An attachment described the planned study as well as a request to identify nurses who fulfilled the inclusion criteria. Three competence groups of nurses were requested: novice, experienced and specialist nurses. The researcher then contacted the nurses who had given their oral consent to participate in the study.

#### **4.5 DATA ANALYSES**

##### **4.5.1 Qualitative analysis**

The qualitative content analysis is a method well suited to analyze texts that describe similarities, differences and patterns in people's experiences (Patton 2004).

In study I, a manifest content analysis was used according to the recommendations by Field and Morse (1985). The following four steps were used:

- 1) two of the authors read all the written text to get a grip of the overall picture,

- 2) the first author then read the text on three different occasions, and the statements were marked out with different coloured pencils,
- 3) an open coding was performed based on the three aspects asked for,
- 4) the separate coding items were discussed by the authors individually and condensed into main themes, and
- 5) the first and third authors read the whole text once again and agreed on the final themes.

In study IV, a latent content analysis mainly following the step-by-step process described by Kvale was used (Kvale 1996; see also Elo and Kyngas 2008, Graneheim and Lundman 2004).

- 1: The transcribed text was read through several times to get a first understanding of the whole.
- 2: The text was then numerically coded into meaning units, and each participating nurse was coded using individual letters. The videotapes were used to identify each participant in the groups.
- 3: The text was sorted into the main themes discussed by the nurses, and
- 4: further sorted into the subthemes that represented how they were reasoning about the case.
- 5: Three categories representing the groups' approach towards the case were created.
- 6: To make these three categories "visible", a "mind mapping" was created to show what the groups emphasized on in their discussion.
- 7: Finally, all the nurses' individual messages in the discussion were summarized separately. These texts were read according to the categories to identify individual differences among the nurses in each group.

During the interpretation process, the authors repeatedly analyzed the themes, the sub-themes as well as the original text to find alternative interpretations. This analytical process provided the opportunity for an open and critical dialogue between the authors until consensus was reached (Sandelowski 1995).

#### **4.5.2 Quantitative analysis**

In studies II and III, the two questionnaires consisted of ordinal scales and data were mostly normally distributed, and therefore parametric statistics was used. Data were analysed using the software Statistical Package for Social Sciences (SPSS 13.0). The level of significance was set to  $p \leq 0.05$ . Anova was used to test differences between the three groups. Correlations between the two questionnaires were tested by Pearson's product moment coefficient correlation.

Two instruments were chosen, both of which being used internationally and then translated and used in Swedish conditions. This was to assure that the instruments were tested for validity and reliability prior to the studies (Polit and Beck 2008). The response rate is another factor that can influence validity in questionnaires. In study II, the response rate was 92%, and in study III 75%, 83% and 86%, respectively. A factor analysis can be used in order to test concept validity in questionnaires. This was not done due to few participants related to the number of questions (Ibid.) Instead we used

the factors found by Gullberg (1996) for the PSDF and those by Nilsson Kajermo and collaborators (1998) for the barriers scale when presenting the results.

#### **4.6 PRE-UNDERSTANDING OF THE CONTEXT**

The author of this thesis has extensive experience of paediatric care as a nurse and as a head nurse, and has also during the last nine years worked as a teacher in specialist training of paediatric nurses, thus being familiar with the processes as well as the work environment of the nurses participating in the studies. This experience was important to facilitate understanding of the nurses' situation, but at the same time being aware of the importance of neutrality when interpreting data (Sandelowski 1995).

There is a risk, regardless of quantitative or qualitative type of method that the researcher affects the process with pre-understanding and therefore the researcher's professional background must be expressed clearly (Hallberg 2002). These aspects were taken into consideration in discussions between the co-writers during the interpretation process.

#### **4.7 VALIDITY, RELIABILITY AND TRUSTWORTHINESS**

Quantitative studies are judged by their reliability and validity. Cronbach's alpha was used to calculate the reliability coefficient of both questionnaires. In this study, the value was 0.94 in PSDF for the overall scale, and 0.84 in barriers overall scale.

Qualitative studies are often judged by *credibility*, *dependability*, *conformability* and *transferability* (Guba and Lincoln 1989). *Credibility* refers to the study's trustworthiness and requires that the researcher has performed both data collection and data analysis. *Dependability* means that the research process is described so the readers can easily follow it, and that the study is accustomed to new emerging material throughout the study. *Conformability* refers to that researchers should believably show how results are based on the material e.g. by quotes. *Transferability* means that results are presented in an understandable way (Ibid.).

#### **4.8 ETHICAL CONSIDERATIONS**

The studies were approved by the Ethics Committee of Karolinska Institutet, Stockholm, Sweden (Reg.No. 3-323 and Reg.No.2008-219-32). There were no connections or dependency between the researchers and the participants. The participants were guaranteed confidentiality by coding every individual. Both the participants and their managers received information about the studies and that the participation was voluntary. All data were brought together excluding names and work place, and were kept secured by the main investigator in a separate file.

The participants could also contact the investigator by telephone or e-mail if having more questions. It is of importance to handle data with caution and respect to every individual participating in studies creating a risk to be recognized by others, as in qualitative studies where quotes are used. As a researcher, it is essential to keep a strict balance between the material where individuals can be recognized, e.g. with quotes or elsewhere in the written text, and respect all participants. The videotapes in study IV guarantee non-violation of the nurses' confidentiality. The researchers have carefully

identified the single nurse's comments in the videotaped consultations by keeping all names confidential (Broyles et al. 2008).



## 5 RESULTS

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### 5.1 CONCEPT DEFINITION (STUDY I)

Study I concerns how newly graduated nurses, without a specialist education, described the nursing profession with regard to responsibility, reflection and management of daily and rapidly changing situations. The results showed that the 18 novice nurses were well aware of the general responsibilities and demands in the nursing role.

Of the three concepts the following themes were identified:

- *Responsibility*: demands and moral issues concerning themselves or towards the patients and colleagues.
- *Management of daily and rapidly changing situations*: knowledge in management of actions.
- *Reflection*: to understand, to think, and to have time and opportunity to do so.

### 5.2 CASE DISCUSSION (STUDY IV)

Study IV concerns how nurses with different experience and education were reasoning about a paediatric case and if there were any qualitative differences in the way of reasoning.

All groups discussed the same fictive, but realistic, paediatric case collected from a setting in a high-specialized paediatric hospital in Sweden. The complex case situation was presented in two parts, each of which the nurses received in two separate envelopes.

Based on *what* the nurses discussed, three themes emerged: the child's social situation, child abuse, and the child's illness. Qualitative differences emerged in *how* the nurses discussed the case. The following subthemes emerged: hypothesizing, drawing conclusions, and proposing actions. Three approaches (categories) could thereafter be identified while discussing the case: task-oriented (two groups: Novice and Experts= N, E), action-oriented (two groups: N, E), and hypothesis-oriented (two groups: Specialists = S).

### 5.3 THE PROFESSIONAL SELF (STUDIES II AND III)

Studies II and III concerns how nurses in paediatric care evaluated their professional self and if there were any differences between nurses with diverse formal competence.

In the newly graduated nurses' scorings at the time of their employment (Study II), the highest scores were found in the items consideration (mean 4.05), ambition (mean 3.91), and sensitivity (mean 3.84). The lowest scores were found in grasp of ideas (mean 2.69), leadership (mean 2.73), and discrimination (mean 2.89).

When comparing three groups of nurses some years after employment (Study III), one significant difference was found between the groups. The control group rated themselves higher in persistence (mean 4.15) than the trainee group (mean 3.52) and the specialist group (mean 3.91) ( $p \leq 0.024$ ). Otherwise no differences were found.

#### **5.4 PERCEIVED BARRIERS TO RESEARCH UTILIZATION (STUDIES II AND III)**

Studies II and III concerns how nurses in paediatric care perceived barriers in research utilization and if there were any differences between nurses with different formal competence.

In the nurses newly graduated at the time of their employment (Study II), it was shown that the statements with the highest scorings, indicating higher barriers, were “there is insufficient time on the job to implement new ideas” (mean 2.71), “the nurse does not have time to read research” (mean 2.73), and “the facilities are inadequate for implementation” (mean 2.34). The lowest barriers were found in “administration will not allow implementation” (mean 0.61), “physicians will not cooperate with implementation” (mean 0.79), and “the research has methodological inadequacies” (mean 0.95)

When comparing the three groups of nurses some years after employment (Study III) few significant differences were found. The specialist group scored higher barriers than the others in “the nurse is unwilling to test new ideas” ( $p \leq 0.01$ ), “there are not enough experienced colleagues with whom to discuss research results” ( $p \leq 0.003$ ), and “the administration does not allow implementation” ( $p \leq 0.028$ ).

## 6 DISCUSSION

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Because of a large turnover of nurses and a shortage of specially trained nurses in paediatric care, there is a need of competence development programmes to strengthen both novice general nurses in their new role but also specially trained nurses. This is necessary in order to provide high quality and safe care for the sick children. Knowing how to best support these nurses, tools are needed to evaluate their knowledge and proficiency. Therefore, the aim of this thesis was to describe and analyze how nurses employed in paediatric care describe the nurse profession, their reasoning about a paediatric case, and their self-evaluation of professional identity including attitudes to research utilization. Three groups of nurses were included and compared. Both qualitative and quantitative methods were used to deepen the understanding of how the concepts of knowledge and competence can be described and identified.

### 6.1 METHODOLOGICAL CONSIDERATIONS

The respondents in this thesis represent nurses at two (studies II and III) respective one (studies I and IV) university children's hospitals in Sweden. For this reason, the findings must be interpreted with some caution. The response rate was high in the studies with questionnaires (studies II and III). However, the numbers of nurses in each group was low, which can be seen as a weakness. The reason was the limited number of nurses available in the trainee group as well as in the control group.

In the two qualitative studies the nurses were recruited from one of the hospitals. In study I, all nurses were newly graduated, newly employed and selected from a trainee programme. They thus consisted of a selected sample. The results should therefore be interpreted with caution in comparison to other newly graduated nurses who receive "traditional introduction", which often means a 2-4 weeks 'routine' introduction. In study IV the three competence groups were from one children's hospital, which also has to be considered. On the other hand, qualitative studies should mainly be interpreted as to what degree the findings seem to be true for the group of nurses included (Kvale 1996).

The texts analysed in study I were short. The nurses were requested to define or describe three predefined issues, which might have influenced their responses. Because of this, the analysis was focused on the visible, obvious wordings – a manifest content analysis. To get a deeper understanding of possible underlying meanings, interviews would probably have yielded more and richer information.

In study IV, the nurses were requested to discuss the fictive case presented to them. The tape-filmed and transcribed text was extensive and therefore offered more possibilities to interpret both what and how they discussed. This facilitated a latent content analysis. Two of the included groups were, however, handling the case more like a school task. They seemed to have been influenced and to a large extent guided by the introductory case instruction than the other groups. This is a limitation since it made it difficult to compare the groups. Another limitation could be that the presented case was fictive,

making it difficult to predict how the nurses would have reacted in a real-life situation. To resolve this issue, further research using real case scenarios at clinical wards is warranted. On the other hand, a major strength of the study is that the discussions were performed in groups of nurses with similar experience and training allowing a more correct identification of existing patterns.

In evaluating qualitative studies, Guba and Lincoln's (1989) criteria for credibility/trustworthiness can be used. These criteria were met in both studies, as one and the same person conducted collection of data and was involved in the analyses. In study I, Guba and Lincoln's criterion for dependability was not met because the description of the analysis process was vague and consequently difficult to follow. Concerning the criterion conformability, quotes from the material in both studies were used to illustrate that the findings are based on the material and therefore products of the inquiry. When discussing the criterion transferability, the readers might be the best to judge (Ibid.).

Two instruments were used to measure professional self and barriers to research utilization (studies II and III). The two chosen instruments were the ones available at the time of the studies and seemed suitable as to the aims. Both instruments have been used and tested concerning validity and reliability in other studies in Sweden. Both Cronbach's alpha values for the overall scales in Professional- Self- Description- Form (PSDF) and Barriers Scale indicate an acceptable to good reliability in spite of the low number of participants.

The PSDF instrument has been used in the United States and in studies in Sweden, showing differences both between similar groups as well as between different groups in the evaluations (Meleis and Dagenais 1981, Andreasson et al. 1992, Gullberg et al. 1994, Gullberg 1996, Olsson 1999, Benko and Sarvimaki 1999, Jonsson and Segesten 2004, Bjorkstrom et al. 2006, Bjorkstrom et al. 2008). Some doubts have, however, been raised related to the construct and criterion validity as to whether the professional self can be measured by the instrument PSDF, and if the instrument really measures what it is supposed to measure (Gedda 2005). Criticism has also concerned the translations made into many different languages, which also could affect validity. At the same time, Gedda refers to the criteria worked out by the Committee of Medical Outcomes and the conclusion is that the PSDF, in principle, meets these criteria. Gedda further claims that the instrument probably is time-dependent regarding the changes that are exerted by official social demands in different professions (Ibid.)

As the PSDF questionnaire asks the nurses to compare themselves with others in the same position, another issue worth mentioning is whether it is possible to compare oneself with others when being a newly graduate, which was the case in one of the studies. Others have used the instruments on students, novices and nurses with working experiences (Gullberg 1996, Björkström 2005, Bjorkstrom et al. 2008). All studies have shown differences in scorings between the groups. This indicates that it is possible to make the assessment when being a novice nurse.

The Barrier Scale, evaluating research utilization, has been used worldwide by nursing researchers (Nilsson Kajermo et al. 1998, Barnsteiner et al. 2002, McCleary and Brown

2003a, Niederhauser and Kohr 2004, Brenner 2005). The studies showed similar results, indicating that nurses' awareness of current research findings often is poor and that they do not consider available research useful in clinical work. Lately, the validity of the Barriers Scale has been questioned. The large amount of "no opinion" answers that regularly occur (Krosnick et al. 2002, McCleary and Brown 2003b) suggests that no-opinion options may discourage respondents from doing the cognitive work and report their true opinion.

Also in the studies included in this thesis there were a number of "no opinion" answers selected which might support this critique. The "no opinions" problem, but also the level of agreement of the options given, raises some doubts about the interpretation. In the Barriers Scale the respondents have to decide on their agreement to specific barriers asked for, and a question of interest is what in fact the respondents respond to. It is hard to know if the responses concern true personal opinions or their actual experiences (Ibid.).

The few differences found between the compared groups of nurses and the high amount of "no opinion" mainly in the factor innovation/research section (study III) might indicate that the answers more likely concern personal opinions rather than experiences. Another issue concerning validity is the fact that the barriers asked for are all formulated negatively or as problems which the respondents have to score. This might unconsciously influence the nurse's responses towards more negative opinions.

Studies of opinions, attitudes to, or experiences of research utilization therefore need to be undertaken in different ways and further research is warranted. When investigating people's attitudes with quantitative questionnaires, the researcher's predetermined questions always are in focus and give little attention to the participant's context (Bryman 1995).

## **6.2 RESULT DISCUSSION**

The aim of the thesis was to gain a deeper understanding of how the nurse's personal/individual knowledge and competence is manifested. The focus was on the perception of the nursing role in general, the professional level and attitudes to research utilization, and if there were any qualitative differences between nurses with diverse formal education and experiences. Besides the methodological considerations, some of the results are particularly interesting and merit further analysis.

Firstly, the nurses' descriptions of the nurse's role were analysed by written accounts concerning their thoughts of responsibility, management of daily and rapidly changing situations and reflection. In study I, the novice nurses described these aspects related to their role as demands towards themselves and towards the patients, moral issues, demands towards others and the importance of understanding and thinking. Although these accounts could be interpreted as general statements, possibly learnt at nursing school, they also show an ability to reflect and understand as part of a learning process (Marton and Ramsden 1988). Their accounts were also in many aspects in line with other published data (Fagerberg and Kihlgren 2001, Fagerberg 2004, Bjorkstrom et al. 2006), indicating their awareness of responsibilities described in the Swedish

regulations for nurses. The similarities to other studies concerning the meaning of being a nurse might be interpreted as the nurses in study I have started their “socialisation” into staff nurses (Ibid.). How prepared they were for the specialist area of paediatric care is not clear, as the comments were general and not paediatric care specific. To learn a practice, individuals have to understand the traditions, routines, policies and the unspoken word (Schön 1987). The nurses are expected to adapt their behaviour in the new workplace context (Wenger 1998, Ohlsson 2009).

In comparison to the findings in study IV, it was evident that the novice nurses had suggestions about what to do for the patient. The novice nurses, but also one group of the experienced nurses, were focused in their discussion on what actions they had to maintain, in other words how to solve the problems that were identified. This is interesting, as setting up hypotheses before making conclusions or proposing actions focused the experienced nurses with specialist education on how to understand the background to the problems found. This might be interpreted as a higher level of competence including an awareness of the complexity in a family situation.

Hallstrom and Elander (2005) also showed that experienced nurses are better in negotiating with families than newly graduated nurses. The differences between the specialist groups and the other groups of nurses are not surprising, as work-related situations can be seen as performance periods which lead to a continuously changing of the understanding (Schön 1987). On the other hand, the experienced nurses with no specialist education discussed the case in the same way as the novice group. This finding is in discordance with Benner’s (1984) description of competence levels, probably due to the fact that the experienced nurses were more at the level of advanced beginners.

The novice and experienced nurses in study IV focused on how to handle or act to solve the identified problems, and taking control of the situation. The specialist groups, however, mainly reflected about the case when they set up hypotheses concerning possible causes to the identified problems, as a manner to understand the situation before drawing conclusions and proposing actions. These differences between the experienced group and the groups with specialist education raise the question of how experience per se increases competence. An additional aspect of thinking and reflection might be necessary to increase competence (Schön 1987, Eraut 2004). This could imply that time for reflection has to be included in the daily work (Öhrling 2000, Huggins 2004, Tynjala 2008, Furaker 2008).

Another issue worth discussing in the identification of knowledge and competence levels is how the nurses assessed their professional level and the fact that few differences were found between nurses with different experience and education (Study III). The results showed merely one significant difference related to the item ‘persistence’, as the nurses in the control group scored higher than the trainee and specialist nurses.

The lack of difference between the groups concerning other items in the questionnaire might be explained by the fact that the questionnaire asks the respondents to compare

themselves with others in the same position, possibly indicating that the nurses mistook assessment of competence with assessment of self-confidence. This finding is corroborated by others (Kelly 1992a, Wenger 1998, Estabrooks 2003) who consider that the professional self is a perception of feeling safe and having control, factors related to self-confidence.

Another explanation might be that specialist nurses are more aware of their own competence and therefore more critical in their self-evaluation than the novice nurses (Benner et al. 1996). If evaluation of professional self is an aspect of importance in identification and development of competence, a fact not demonstrated in this thesis, the interpretation of what factors could stimulate or prevent professional self is interesting.

We know that the learning process is individual, but it is dependent on circumstances and environment (Säljö 2005, Khomeiran et al. 2006). Others mean that the professional self-concept is built up through self-evaluation of professional knowledge, values and skills (Kelly 1992b). The validity of the PSDF has also been discussed and questioned by Gedda (2005). The low number of participants in the different groups, giving rise to a Type II statistical error, might also explain the lack of difference between the groups.

One aspect in the professional role as a nurse is to guarantee safe care based on science and best practice. When analysing the scores in the nurses' opinions of barriers to research utilization (study III), the *mean* values in most of the items were under or just above two (on a four-graded scale), which could be interpreted as low barriers and therefore indicate that there are opportunities to use research in practice. However, when looking at the number of nurses who scored moderate or great barriers (3-4), there were large variations. The ratings were about the same between the newly graduated nurses, nurses two years after graduation, and the specialist group.

As already discussed in the methodological considerations, the results might indicate that the questionnaire measures a personal opinion rather than a true experience. If so, we know nothing about whether the nurses in reality use research findings. Bjorkstrom and Hamrin (2001) found in their study that only half of the respondents had ever read any research journal, which might indicate that there is an inverse relationship between scoring high barriers and reading of scientific literature. This is further supported by Estabrooks (2003) who found that information and knowledge were retrieved by personal contact more likely than through Internet.

Interesting to note, as described in a recent study by Bjorkstrom et al. (2008), is that the interest to participate in research or the desire to contribute to knowledge, decreased with increasing experience, which could indicate that implementation of research in clinical practice is difficult. Another answer to the problem could be the fact that nurses in general do not find research reports available in the wards and there is no time to go to the library. The environment, leadership, organizational culture, training, facilitation and resources are other aspects of great importance when implementing evidence-based care (Wallin et al. 2003, Wallin et al. 2006), i.e. a working context giving nurses the opportunity to develop their identity, skill and expertise (Meleis 1975, Benner et al. 1996, Gerrish 2000). The highest barriers were found in the organization/setting, which indicates the need of a supportive organization stimulating nurses to use research. Disappointment concerning lack of support when participating in research and

development projects, lack of academic degree and ambiguous workplace goals have recently been identified as important predictors of barriers to research utilization (Kajermo et al. 2008). Thus, in highly specialized clinical wards like in paediatric care, the need to provide staff with necessary knowledge and skills in order to maintain high quality care in the specific area is increased.

The results highlight the importance of head nurses and administrative staff creating strategies and possibilities for nurses in clinical practice to make research implementation happen. Recently, Carlson and Plonczynski (2008) stated that identification of barriers to nurse's use of research has not had any influence on nursing practice. This is further supported by Darbyshire (2008) who discussed the specific problem regarding lack of research in paediatric care and concludes that there is high time to create research possibilities in practice for nurses at wards. He means that a new approach to clinical practice research must be implemented, since solely expanding the knowledge about barriers to research utilization has not proved effective. Furthermore, he provides some practical suggestions to facilitate the use of research, such as rewarding nurses financially and offer a collaborative culture where nurses can create research projects together with others in the working team. He is of the opinion that research projects could unify the different professionals in a team.

However, the question remains if research utilization or evaluating professional self are factors of importance in identifying competence levels. We could not find any connections between professional self and perceptions about barriers to research utilization. But if high quality care is to be maintained, education and training is needed to provide the staff with the necessary knowledge and skills to meet the challenges they encounter every day (Ward and Wood 2000, Wynd 2003).

Critical thinking seems to be essential for a reflective learning process (Kolb 1984, Schön 1987, Öhrling 2000, Eraut 2004). The use of research can thus be seen as a necessity for offering evidence-based care to the patients but also for nurses' individual knowledge development (Cowley 1995, Timpson 1998, Barnsteiner et al. 2002, McCleary and Brown 2003a).

In study IV, no nurses mentioned in the discussions whether their statements were taken from something they had read in books or in nursing research journals. But it was obvious that they were mainly leaning on their own experience, which was mostly shown in the hypothesis-oriented approach groups, but also in the experienced nurses.

The awareness of knowledge development as an important aspect in the nursing role was mentioned by the nurses in study I, which is in accordance with the results of others (Fagerberg and Kihlgren 2001, Fagerberg 2004, Bjorkstrom et al. 2006). The findings of an awareness of competence and knowledge development (study I), the variations of scorings in barriers to research utilization (studies II and III), and the absence or reluctance of referring to research results during discussions (study IV) might be interpreted as nursing basically being a practical profession where experience is the main source for development, while research is a matter for 'others' to take care of.



The methodological considerations taken together with the analysis of our findings delineated above indicate that further and deeper investigations into the significance of professional identity are needed to get further understanding of the way nurses' personal/individual knowledge and competence is manifested.

## 7 CONCLUSIONS

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- Newly educated nurses are aware of their responsibilities as nurses in general.
- Self-evaluation of professional self is evaluated similarly between nurses with different experiences and education.
- The opinion of barriers to research utilization is similar between nurses with different experiences and education.
- There is no evident association between professional self and barriers to research utilization.
- In nurses with different experiences and education, qualitative differences became apparent when discussing a fictive patient case.
- The few differences in the professional self and barriers to research utilization and the lack of association between the two questionnaires indicate that the two instruments are of limited significance in identifying differences in knowledge and competence.
- Nurses' competence development and how it is reflected in the quality of given care needs to be further investigated.

## 8 CLINICAL IMPLICATIONS

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The results show both similarities and differences between the groups of nurses studied and indicate that enhancing and promoting competence must be an integrated component of the daily work to stimulate ongoing development. In reality, there is often a lack of nurses with a proper specialist education in paediatric care, a fact which might influence the daily workload since nurses are supposed to learn and share experiences with each other (Lave and Wenger 1991, Wenger 1998, Eraut 2004, Säljö 2005, Tynjala 2008, Ohlsson 2009). To achieve this, a balanced staff composition is required.

A question for the future is what managers will achieve to assess, evaluate and support nurses in the development of their professional role, to help them become those highly competent nurses necessary for providing the best and evidence-based care to those needing it. Critical thinking and reflecting on new research-based knowledge are some important factors in this development (Linder 1999, Manninen 1999, Öhrling 2000) and can be seen as crucial for all nurses' development independent of professional level.

To continuously develop knowledge and competence, the organizations have to set up a process of learning for both newly employed and regular personnel by using the practice itself as a learning opportunity (Wenger 1998). An organization open-minded to learning and knowledge development where the staff has the possibility and opportunity to reflect on their work is an essential prerequisite for developing competence in daily work (Eraut 2004, Tynjala 2008, Hallin and Danielson 2009). This clearly implies that pedagogical awareness is needed in workplaces as a path to achieve knowledge for professionals (Hult et al. 2009).

Another aspect worth mentioning is the so-called magnet hospitals as an example of how organizations can support personnel competence development. These hospitals are characterized by offering an attractive work environment for nurses, obviously resulting in a lower turnover, lower vacancy rates and higher work satisfaction levels than other hospitals (Buchan 1994, Aiken et al. 2000, McClure 2005). Characteristic for these hospitals is that a well-qualified nurse executive is the manager in a decentralized flat organization structure, and that the head nurse is a formal member of the highest decision-making group in the hospital (Upenieks 2002). Furthermore, Upenieks claimed that in a flat organization the hierarchic distance between clinical nurses and the nurse executive is minimal which makes nurses feel more recognized, supported and involved in decision-making in patient care and hospital governance. This in turn might lead to good educational programmes, professional autonomy and high standards of patient care (Ibid.).

The need for long-term, strategic planning in the development of evidence-based nursing is well documented (Wallin et al. 2003, Wallin et al. 2006). Such planning must address individual as well as organizational factors and should be directed towards the development of specific skills in the context of an encouraging, science-oriented health care environment (Marchionni and Richer 2007, Gerrish et al. 2008, Kajermo et al. 2008).

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000128

**Trainee- året på Astrid Lindgrens barnsjukhus**

Datum.....

Namn.....

**Vad ligger i begreppet ;**

Sjuksköterskans ansvar:

Handlingsberedskap:

Reflektion:

# FORMULÄR FÖR SJUKSKÖTERSORS JAG-BESKRIVNING

Detta formulär innehåller 21 olika beskrivningar. Du ska värdera *dig* själv i förhållande till flertalet andra inom yrkesgruppen. Vid varje enskild beskrivning markerar *du* med en siffra (1-7) som motsvarar *din* uppfattning. Dina svar anger *du* utmed en 7-gradig skala enligt följande:

- 1 Absolut sämre än flertalet andra sjuksköterskor
- 2 Lite sämre än flertalet andra sjuksköterskor
- 3 Varken sämre eller bättre än flertalet andra sjuksköterskor
- 4 Lite bättre än flertalet andra sjuksköterskor
- 5 Absolut bättre än flertalet andra sjuksköterskor
- 6 Avsevärt mycket bättre än flertalet andra sjuksköterskor
- 7 Till en nivå sällan jämförbar

## 1 ARBETSMOTIVATION

Tänk på den energi med vilken *du* utför *ditt* arbete. Tänk även på den snabbhet med vilken *du* arbetar och den arbetsmängd *du* utför.

## 2 TROVÄRDIGHET OCH PÅLITLIGHET

Tänk på *din* vilja att försvara yrkets status, att ärligt rapportera resultat och att trovärdigt utföra de uppgifter *du* har åtagit *dig*.

## 3 OBJEKTIVITET

Den grad med vilken *du* förblir objektiv då *du* värderar och analyserar tankar och idéer, individuella begåvningar och prestationer oavsett *ditt* personliga engagemang.

## 4 FLEXIBILITET

Tänk på *din* förändringsförmåga; att påverkas av nya och ändrade situationer och att vara flexibel i tanke och handling. Tänk på om *du* är öppen för nya idéer, procedurer och tekniker. Hur *du* utnyttjar dessa och i vilken utsträckning *du* gör ändringar i *ditt* arbete.

## 5 HANDLINGSBEREDSKAP OCH PROBLEMLÖSNINGSFÖRMÅGA

Tänk på *din* förmåga att förstå det viktiga i problemet, att inse alternativa lösningar och att välja ut den mest lämpliga lösningen.

## 6 FRAMSTÄLLNINGSFÖRMÅGA

*Din* förmåga att informera andra, att lära ut, att framställa gamla och nya idéer, att förklara och illustrera komplexa frågeställningar på ett klart och metodiskt sätt. Tänk på *din* vilja och förmåga att använda material, demonstrationer och förklaringar. Tänk på *din* förmåga att hålla dem uppmärksamma under *din* redogörelse.

## 7 UTHÅLLIGHET

Tänk på *din* förmåga att arbeta hårt under en längre tid, att avsluta ett påbörjat arbete och aldrig ge upp förrän det är bäst att göra så.

## 8 ANPASSNINGSFÖRMÅGA

Tänk på hur pass mycket *du* åsidosätter egna idéer och känslor och accepterar andras, oavsett *din* egen uppfattning. Tänk på *din* samarbetsvillighet, att neutralisera motsättningar och att få arbetet gjort så friktionsfritt som möjligt.

## 9 SJÄLVSTÄNDIGHET I TANKE OCH HANDLING

Tänk på *din* beslutsamhet att staka ut en handlingslinje och att nå målet utan övertalning, påtryckning, ledning eller auktoritet från någon annan än *dig* själv.

## 10 RÄDIGHET/FYNDIGHET

*Ditt* utnyttjande av tillgångar i tanke och handling. Tänk på *din* förmåga att använda alla resurser, vare sig de är självklara eller inte, vilka kan tänkas vara tillgängliga för utförandet av *ditt* arbete. Värdera *din* fyndighet att få fram material, hjälpmedel, tillfällen etc, som befrämjar *ditt* arbete.

## 11 FÖRMÅGA ATT SE DET VÄSENTLIGA

*Din* förmåga att skilja mellan det relevanta och irrelevanta, mellan det väsentliga och det tillfälliga, mellan det produktiva och det torftiga i *ditt* arbete. Tänk på *din* uppfattning av vad som är nödvändigt och inte nödvändigt, vad som är praktiskt eller opraktiskt och vad som är primärt eller sekundärt i *ditt* arbete.

- 1 Absolut sämre än flertalet andra sjuksköterskor
- 2 Lite sämre än flertalet andra sjuksköterskor
- 3 Varken sämre eller bättre än flertalet andra sjuksköterskor
- 4 Lite bättre än flertalet andra sjuksköterskor
- 5 Absolut bättre än flertalet andra sjuksköterskor
- 6 Avsevärt mycket bättre än flertalet andra sjuksköterskor
- 7 Till en nivå sällan jämförbar

## 12 FÖRMÅGA ATT LEDA ARBETET

*Din* skicklighet att leda och styra andras verksamhet. Tänk på *din* förmåga att få andra att följa *dina* råd och anvisningar, att acceptera *din* åsikt. Tänk på *din* övertalningsförmåga, fasthet och framåtanda.

## 13 FÖRMÅGA TILL LAGARBETE OCH SAMVERKAN MED ANDRA

Hur lätt *du* trivs med många olika slags människor. Tänk på hur mycket *du* egentligen önskar andras sällskap jämfört med *din* önskan att vara ensam, i vilken utsträckning *du* föredrar lagarbete i stället för arbete man i allmänhet utför ensam.

## 14 MEDMÄNSKLIGHET

*Ditt* intresse för andra människor. Tänk på hur pass varmt *du* känner för och agerar med andra, hur hänsynsfull och omtänksam *du* är för deras känslor och hur mycket *du* önskar hjälpa andra.

## 15 FÖRMÅGA TILL EMPATI

Hur känslig *du* är för andras reaktioner och motiv. Tänk på hur bra *du* förstår människor och varför de gör det de gör. Tänk på *din* följsamhet och vakenhet för vad andra känner och vill, *din* lätthet att ta folk och *din* förmåga att svara effektivt och kunnigt genom att hjälpa andra med deras problem.

## 16 VILJA ATT BEHÄRSKA KUNSKAPEN

Värdera *din* vilja att behärska massan av vetenskapliga och tekniska principer och teorier som hör till vårdyrket. Tänk på i vilken utsträckning *du* är angelägen att använda sådana principer, hellre än att bara ha reda på de som *du* kan använda i ett visst specifikt arbete eller problem.

## 17 VILJA ATT BIDRA TILL VETENSKAPEN

*Din* önskan att bidra till den redan befintliga kunskapen om vård genom experimentella studier. Tänk på graden av intensitet i *din* önskan att få nya insikter för deras egen skull och för människorna i allmänhet samt den utsträckning, med vilken *du* finner stor belåtenhet i att söka dessa insikter.

## 18 INTUITION

*Din* förmåga att känna och uppfatta betydelsen i tankar, situationer etc, även om *du* inte är helt medveten om det. Tänk på *din* styrka och strävan att finna mening i strukturer, situationer, fakta, likheter och tankar genom en inre känsla av deras mening och karaktär innan *du* kan förklara varför *du* uppfattar det.

## 19 KREATIVITET

*Din* förmåga att skapa, underhålla och genomföra en ny idé i vården. Tänk på den nya idéen som förekommande inom något vårdområde, t ex patientvård, hälsovård, undervisning, arbetsledning, administration eller forskning. Tänk på det enastående med idéen och det antal människor den kan inverka på.

## 20 DIN AMBITION

Tänk på *din* vilja att avancera inom *ditt* yrkesområde och på det sätt *du* uppfyller och verkliggör detta.

## 21 DIN STRESSTOLERANS

*Din* förmåga att arbeta under tidspress/surriga miljöförhållanden och alltjämt bibehålla kontroll över den egna arbetssituationen. Tänk på *din* kunskap och förmåga att neutralisera uppkomna situationer av stress.

## Frågeformulär

### Hinder och möjligheter för användning av forskningsresultat i klinisk verksamhet

I vilken utsträckning tycker Du att nedanstående påståenden utgör hinder för sjuksköterskor att använda forskningsresultat i sin praktiska verksamhet

För varje påstående ringa in den siffra för det svar som bäst stämmer med Din uppfattning

	Stämmer precis	Stämmer ganska bra	Stämmer inte särskilt bra	Stämmer inte alls	Ingen åsikt
1. Forskningsrapporter/artiklar finns inte nära till hands	4	3	2	1	0
2. Betydelsen av forskning för praktisk verksamhet är inte tydlig	4	3	2	1	0
3. De statistiska analyserna är svåra att förstå	4	3	2	1	0
4. Forskningen är inte relevant för sjuksköterskans arbete	4	3	2	1	0
5. Sjuksköterskan är inte medveten om forskningen	4	3	2	1	0
6. Resurserna för att omsätta forskningsresultat i praktiken är otillräckliga	4	3	2	1	0
7. Sjuksköterskan har inte tid att läsa forskningsrapporter	4	3	2	1	0
8. Forskningen har inte upprepats för att säkerställa resultaten	4	3	2	1	0
9. Sjuksköterskan tycker att fördelarna med att byta arbetsätt utifrån nya forskningsrön blir minimala	4	3	2	1	0
10. Sjuksköterskan är osäker på om hon/han kan lita på forskningsresultaten	4	3	2	1	0
11. Forskningsmetoderna som används är inte bra	4	3	2	1	0
12. Den relevanta litteraturen finns inte samlad på ett ställe	4	3	2	1	0
13. Sjuksköterskan känner inte att hon/han har tillräckligt med inflytande för att förändra rutiner	4	3	2	1	0

	Stämmer precis	Stämmer ganska bra	Stämmer inte särskilt bra	Stämmer inte alls	Ingen åsikt
14. Sjuksköterskan tycker inte att forskningsresultaten generellt kan omsättas i den egna verksamheten	4	3	2	1	0
15. Sjuksköterskan har inte forskarutbildade kollegor med vilka hon kan diskutera forskning	4	3	2	1	0
16. För sin egen del ser sjuksköterskan små fördelar med forskning	4	3	2	1	0
17. Forskningsrapporter publiceras inte tillräckligt snabbt	4	3	2	1	0
18. Läkare vill inte samarbeta när det gäller att införa forskningsresultat inom sjuksköterskans arbetsområde	4	3	2	1	0
19. Ledningen tillåter inte införande av forskningsresultat inom sjuksköterskans arbetsområde	4	3	2	1	0
20. Sjuksköterskan ser inte värdet av forskning för den praktiska verksamheten	4	3	2	1	0
21. Det finns inget dokumenterat behov av att förändra den praktiska verksamheten	4	3	2	1	0
22. Slutsatserna som dras utifrån forskning är inte försvarbara	4	3	2	1	0
23. Litteraturen rapporterar motstridiga resultat	4	3	2	1	0
24. Forskningen rapporteras inte klart och tydligt	4	3	2	1	0
25. Övrig personal stödjer inte nyttjandet av forskningsresultat	4	3	2	1	0
26. Sjuksköterskan är ovillig att förändra/prova nya idéer	4	3	2	1	0
27. Sjuksköterskan är inte kunnig i att bedöma forskningens kvalitet	4	3	2	1	0
28. Tiden räcker inte till för att genomföra nya idéer	4	3	2	1	0
29. Att forskningsrapporter/artiklar är skrivna på engelska hindra sjuksköterskan från att ta del av resultaten	4	3	2	1	0



Finns det andra faktorer som Du tror är hinder för användning av forskningsresultat? Om så är fallet, var vänlig räkna upp dessa nedan och bedöm var och en på skalan:

	Stämmer precis	Stämmer ganska bra	Stämmer inte särskilt bra	Stämmer inte alls	Ingen åsikt
30. _____	4	3	2	1	0
31. _____	4	3	2	1	0
32. _____	4	3	2	1	0
33. _____	4	3	2	1	0

34. Vilka av ovan nämnda påståenden (1-33) tycker Du är de tre största hindren?

Största hindret.....Påstående nr:.....

Näst största hindret.....Påstående nr:.....

Tredje största hindret.....Påstående nr:.....

Vilka faktorer anser Du underlättar användandet av forskningsresultat?

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**Tack för Din medverkan!**

1.

**Diskutera "fallet" Emma utifrån de risker hon kan utsättas för i sin livssituation och vilka beslut du/ni som sjuksköterska/or skulle fatta för att minimera riskerna. Motivera vilka ställningstagande som ligger till grund för ditt/ert beslut. Ni behöver inte vara överens i gruppen om beslut och motiveringar.**

Du jobbar kväll på medicinsk vårdavdelning för barn. Ni har tysta rapporter. När du kommer för ditt kvällspass och läser in dig på dina patienter finns där ett par "nya" barn för dig, som du inte träffat förut. Ett av dem är Emma som är 3 år gammal.

Emma finns på avdelningen tillsammans med sin mor. Hon kom till avdelningen efter ett besök på barnläkarmottagningen. Hon går på barnläkarmottagningen på grund av sin diabetes som hon haft sedan hon var 2 år gammal.

Vid detta besök på barnläkarmottagningen upplevde personal, åter igen, att Emmas mamma inte förstår vad Emmas sjukdom innebär. Nu har Emma kräkts mycket hemma utan att mamman verkar förstå att det kan ha med hennes diabetes att göra. Hon kontrollerar inte Emmas blodsockernivåer som hon borde. Hon verkar inte förstå kostens betydelse för Emma. Emma kommer ofta på besöken med otvättade kläder och smutsig. Det finns noterat i journalen att Emma vid flera tillfällen haft fula blöjdermatit på grund av att blöjorna inte blivit bytta.

Allt detta finns beskrivet i remissen som barnläkaren på barnläkarmottagningen skrivit.

Det här läser du om Emmas laboratorievärden:

Hb	145	Ph	7,2
Na	128	Baseexcess	-11
K	2,9	PCO <sub>2</sub>	4,1
Ketoner	2,3	b-glucos	28

Urinprov

Leukocyter	0
Erytrocyter	0
Protein	0
Glucos	3+
Ketoner	3+

När du går runt och hälsar på barnen så finner du Emma ensam i sin spjäsäng på avdelningen. Mamman ser du ingenstans. Mamman till barnet som ligger på samma rum uppger att Emmas mamma bett henne att hålla koll på Emma medan mamman gått ut för att röka, men att det var för mer än en halvtimme sedan. När du efter en stund träffar mamman och påtalar att hon måste säga till personalen om hon skall gå från avdelningen brusar hon upp och skäller på dig. Hon undrar varför alla skall vara efter henne så, det var väl inte så märkvärdigt, hon har ju bara varit borta några minuter.

Kvällen förlöper lugnt. Emmas värden håller sig på en bra nivå. Du rapporterar till den sjuksköterska som kommer för att jobba natt att han skall hålla lite extra koll på Emma och hennes mamma för du tycker inte heller att mamman verkar förstå sig på allvaret i Emmas sjukdom.

2.

**Diskutera nu "fallet" Emma igen efter den nya informationen som du har fått. Denna gång diskuterar ni nattsjuksköterskans beslut och åtgärder under natten. Vilka beslut och åtgärder finner du/ni motiverade och varför. Skulle du/ni ha handlat på ett annat sätt i denna situation eller finns det alternativa handlingsstrategier i den beskrivna situationen. Motivera dina/era ställningstaganden. Ni behöver inte vara överens i gruppen om beslut och motiveringar.**

På morgonen möter du en trött och upprörd nattsjukskötare. Pappan har, vid midnatt, dykt upp på avdelningen påtagligt berusad. Man blev tvungen att flytta runt patienterna så att Emmas familj får eget rum för att inte störa de andra patienterna. Pappan har varit ordentligt hotfull mot både personalen och mamman. Personalen försökte till att börja med lugna pappan själva. Men de kände att de inte kunde bemästra situationen. Till slut hade de ringt vakten som fick komma och avvisa pappan. Mamman tycker inte att det var så mycket att orda om. Det var ju lördagskväll och då brukar de ha fest så pappan hade väl haft det själv, anser hon. Hon uttrycker att det är "skit" att man måste ligga på sjukhuset över helgen.

På rondan bestämmer man sig för att göra en helkroppsröntgen av Emmas skelett. Man bestämmer sig också för att göra en anmälan till sociala myndigheter.

När Emmas svar på HbA1c kommer efter 4 dagar visar det sig att det var 8,5