

ORIGINAL RESEARCH

Facilitation of learning in specialist nursing training in the PICU: The supervisors' concerns in the learning situation

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Abstract

With the aim to unfold nurses' concerns of the supervision of the student in the clinical caring situation of the vulnerable child, clinical nurses situated supervision of postgraduate nursing students in the Pediatric Intensive Care Unit (PICU) are explored. A qualitative approach, interpretive phenomenology, with participant observations and narrative interviews, was used. Two qualitative variations of patterns of meaning for the nurses' clinical facilitation were disclosed in this study. Learning by doing theme supports the students learning by doing through performing skills and embracing routines. The reflecting theme supports thinking and awareness of the situation. As the supervisor often serves as a role model for the student this might have an immediate impact on how the student applies nursing care in the beginning of his or her career. If the clinical supervisor narrows the perspective and hinders room for learning the student will bring less knowledge from the clinical education than expected, which might result in reduced nursing quality.

Key words

Clinical supervision, clinical learning, Specialist nursing students, Pediatric Intensive Care Unit

1 Introduction

Critical care nursing often requires a post registration education; during this period the supervisor has a key role in supporting the students' learning process. Extensive work has been conducted worldwide to develop recommendations for the expected learning outcomes from practice in postgraduate education^[1]. However the focus of these recommendations has often been on the expected competencies the nurse is supposed to possess after education. To focus solely on the outcome has been criticized to be a simplistic solution in addressing the complexity of the learning process^[2-4]. In order to strengthen the debate about the importance of the actual learning process in the clinical practice to support the nurses' to reach the intended learning outcomes, this study explores aspects of clinical nurses' situated supervision of advanced level specialist nursing students in intensive care nursing, in the actual nursing situation in the Pediatric Intensive Care Unit (PICU). In Sweden there are 11 regulated specialist nursing programs leading to a Graduate Diploma in Nursing. The education is quality assured by a government body, The Swedish National Agency for Higher Education. Education

content is equivalent to 60 European Credit Transfer System on Advanced Level (ECTS) ^[5]. During the education postgraduate nursing students spend approximately 60 days of clinical training. Even though attention has been directed towards the students learning in the clinical environment and clinical learning in accelerated programs ^[6-10], little is still known about the direction of concerns related to supervision in the clinical educating situation and what is passed forward as meaningful in the learning situation. This study was performed at all PICU's in Sweden (n3). The PICU serves a range of critically ill children, from premature to 18 year olds. All of them have different life-threatening conditions, are in a variety of development stages and physicians as well as nurses with a variety of specializations are engaged in the care.

Background

Caring for critically ill children requires specific knowledge about critically ill children and their needs. Nursing care knowledge is taught in the classroom, and is expected to become transferred into the clinical setting by the students ^[11]. However, as pointed out by Benner ^[12], theoretical learning differs from learning in the clinical context. The environment and the social interaction are recognized as having an influence on learning ^[13] and contextual factors have importance for facilitating students clinical practice ^[14]. Clinical supervising in nursing is about facilitating students' understanding of the nursing care process, how it is applied and individualized in accordance to the child's specific caring needs. The supervisor is not solely more theoretically knowledgeable but expected to have gained advanced clinical knowledge during time through, encounters with children in clinical practice, meeting varied caring as well as different medical needs ^[15-17]. To bridge the practice theory gap, clinicians needs to be engaging in supervision as well as continuous professional development and self-managed learning ^[14]. Holst *et al.* ^[18] emphasizes the importance for the supervisor to develop an approach that includes reflective supervising and as discussed by Olmstedt *et al.* ^[19], the individual supervisor's ethical maturity is essential for quality in nursing encounter. Even though the supervising specialist nurse in the PICU is theoretically knowledgeable in nursing and moreover has gained pedagogic skills, it is not the same as facilitating maturity in caring ^[20]. The pediatric intensive care milieu is technically advanced and children cared for are dependent on technical support to survive. Thus a medical focus is motivated and nurses engaged in this care have to be technically skilled and medically trained. However, unilateral medical orientation was found to imply a risk neglecting children's needs aside from vital physical needs as shown by Mattsson *et al.* ^[21]. When affected by own or next of kin's severe illness "the little extra" is what counts and moreover, being unaware of the patients need in a holistic way increases suffering ^[22]. Shortcomings in developing caring competence may depend on the individual nurse's limitations in recognizing and interpreting the nursing situation, the clinical caring culture of the ward or it might mirror a lack of an organizational clinical learning strategy ^[23]. The supervisor is expected to become the key person in the student's process of gaining access to the clinical knowledge – the "how we do here and why?" In order to facilitate the student to become attentive towards the child's caring needs, the supervisor needs to direct the student's concerns towards the child ^[12]. A caring situation according to Benner *et al.* ^[24] and Benner and Wrubel ^[25] does not only encompass the immediate encounter with the child, it encloses the contextual frame, the individual actor's history, cultural and social aspects as well as the past, the present and the future. This leads to the aim of the study: To unfold nurse supervisors' concerns of the supervision of specialist nursing students in the clinical situated nursing situation of the critically ill child.

2 Method

2.1 Design

This study was conducted with an interpretive phenomenological approach. This method enables the attempt to capture nurses' everyday skills, habits and practices. In the encounter between the supervisor and the student it is not just two persons meeting, it is also about two persons interwoven life worlds interacting and influencing the understanding of what is salient in the situation. The caring and learning are intertwined and inseparable in the clinical context, however the concerns in the situation can be observed via close observations of direct practice with children and deepened by interviews about particular situations. To uncover nurses' concerns we leaned on the ideas of Benner *et al.* ^[25] and studied

the exchange in order to determine the common ground of what is experienced as salient in a situation, which will be noticed by a person as significant and meaningful. Hence the phenomenon is studied in its natural context where contextual factors and nurses' beliefs constantly interact and are intertwined^[26]. This might not have been the case if we had asked supervisors and student to reflect about supervision in general.

2.2 Ethical considerations

All participants participated on an informed, independent and voluntary basis. They were all promised confidentiality and informed that they could cease participation at any time. Ethical approval was obtained from the ethical committee at the Karolinska Institute, 2011/244/31-1, as well as from the head of each PICU clinic.

2.3 Setting

The study took place between March and June 2011 at all pediatric intensive care units (n3) in Sweden. The pediatric intensive care unit is designed for admittance of severely ill children and together they contain 25 beds. The children admitted to the PICU are in need of intensive care because of their condition and can be of all ages up to 18 years. The PICU involves different specialties, such as surgery, medicine, neurosurgery, heart surgery, trauma, organ transplantation and infection. Conventional ventilation as well as high frequency oscillatory ventilation (HFOV) treatment, Nitrogen oxide (NO) treatment and Extra Corporeal Membrane Oxygenation (ECMO) treatment are included. Furthermore these units serve Pediatric Emergency Transport Service (PETS), transporting patients in Sweden and Europe. Additionally two of the units are responsible for the care of children undergoing complicated open-heart surgery.

2.4 Participants

To capture the clinical nurses' situated supervision of advanced level specialist-nursing students guided the sample choice. A total of ten registered nurses, all with a post graduate diploma in intensive care nursing and with a clinical experience in the PICU varying from 2 to 23 years (with a mean of 4,5 years) of experience participated in the study. They were all engaged in supervising postgraduate nursing students within their clinical education in PICU. Participants were a convenient sample of nurses in the setting who were supervising post graduate nursing students and agreed on participating in an observation and following interview. The supervisors included had specialist training in intensive care, pediatrics, anesthesia or the older form of advanced training that rendered competence within both anesthesia and intensive care. The students' prior clinical experience as registered nurses varied from no experience at all to 5 years (with a mean of 2 years).

2.5 Data collection

The first author performed all data collection. Ten observations and interviews were performed. The observations lasted between 120- 240 minutes and the interviews were 20- 60 minutes long. The data collection was done at the participants' workplaces to ensure that they were influenced of their everyday practice environment.

2.6 Observations

Observing nurses in their everyday practice gave the researcher access to the clinical supervisor nurses' situated supervision of specialist nursing students in the nursing situation in the PICU. Benner, Tanner and Chesla^[20] puts forward that nurses' function in the caring situation is more evident in observations than in narratives due to the self-evident nature of the background of the context that is hard for the practitioner to describe. The observer aimed to capture the supervising nurses' central concerns for the students as well as the vulnerable child, their concerns in the supervising of the caring situation and how they organized supervision of the situated nursing care given. During the observations the first author sat in a corner dressed as a nurse and recorded the interaction and verbal exchange during the observation. The corner allowed a good overview of the child's bed and of occurrences, while it kept the observer out of the way. The observations made it possible to see the everyday nursing care given by the nurse. Usually nurses do the things they do (for example touching

the child for information) without thinking of what is really done or why, until something different happens (for example the student asks why they do it) that changes the ordinary, and the nurses start to reflect ^[12].

2.7 Interviews

When the interview started the participants were asked to describe, in their own words, what had occurred during the observation. Then the interviews continued with the observation notes as a platform for the interview. The intention was to deepen the understanding of what had occurred, and why, during the observations. Interviewees were also asked to explain and clarify why some observed supervised nursing care actions had occurred and what they had felt and thought of in the situation. A thematic interview guide influenced by Benner and Wrubel ^[25] and Benner, Tanner and Chesla ^[20] with thematic questions were used to support the nurses to tell their story. The interview guide highlighted the following themes: Emotional involvement, problem engagement, environmental hindlers, environmental facilitating.

2.8 Analysis

The observations were primarily the focus in the analysis, using interviews to add a deeper understanding, of concerns, conflicts and choices made in the situations that had been observed. According to Benner ^[20] the analysis begins in conjunction with data collection, and the transcription of observations. The transcribed material, observations and interviews, were read several times to get preliminary understanding of what the data as a whole described. In the second phase paradigm cases and exemplars were sought for via an interpretation of the transcribed material ^[16, 20].

Parts in the text of the observations interpreted as salient to the aim were highlighted and given descriptive names that captured the meaning, resulting in preliminary themes of interpretations of nurses concerns of their supervision in the nursing care situation ^[16, 20].

In the third phase a process to establish the names begun. The meaning that was captured by various names was discussed. The naming aimed to elucidate the patterns of meaning in the supervising of the nursing care situation ^[20].

2.9 Trustworthiness

The trustworthiness is related to the understanding of the work as a whole ^[16]. According to Guba ^[27], the truth-value is strengthened if the phenomenon sought is made evident from various perspectives and the results are acknowledged as accurate interpretations from people that share the described experience. In this study the phenomena sought is found through observations and validated by the interviews with the participants. Trustworthiness is also achieved via the logical structure of the study, that is, how well the design supports the aim of the study and how well the research is completed. Throughout the process the researchers have been discussing the research process, data collection and the process of analysis. Guba ^[27] refers to the degree of which the findings in the study can be applied to other contexts, outside of the study. It is reasonable to believe that the results may be applicable and transferable to similar situations and contexts elsewhere. This study is conducted in what Guba ^[27] calls a naturalistic setting with few controllable variables, which strengthens the trustworthiness. In this study, a qualitative design and approach was chosen in order to gain an understanding of what it is like to be and act as a facilitating nurse in the PICU, and observing and interviewing was deemed to be purposeful for this quest.

3 Findings

There were two qualitative variations of patterns of meaning for the nurses' clinical supervision of the student in the caring situation disclosed in this study. They are presented as themes with sub themes describing the overarching ways in which clinical supervision of specialist nursing students were performed. They are as follows: *The learning by doing theme* which focus on developing clinical skills and embrace routines with sub theme: *Managing work routines and skills facilitator*. The *Reflecting theme* that supports thinking and awareness, with sub themes: *Passive facilitating* and

Dialogical facilitation. The patterns of clinical supervision were not pure; nor were they mutually exclusive, nor does this study investigate if one pattern of clinical supervision develops into another over time.

3.1 Learning by doing theme

In this theme the supervision facilitates the student's learning by doing, as the nurse performs skills and embraces routines. The supervising nurse controls the learning process as her concerns decide what to acknowledge in the situation. There is a lack of a clear pedagogical learning process as the concerns in the situation are shifting, however first priority are the medically oriented tasks as medicine delivery, the child's physiological needs and unplanned events that occur. Hence there is no start or ending of the supervision, the medical needs steer the time frame and the shared common meaning seems to be that physical support, medical attention and technical care has priority in the situation.

3.2 Managing work routines

In this pattern of supervision the student's agenda is framed by what the supervising nurse wants the student to attend to. This pattern structures the work during the day as the student works independently side by side with the supervising nurse, focusing on what she finds meaningful to attend to. The supervising nurse checks if the student performs the tasks agreed upon or if the student knows how to perform a certain skill before an intervention. Why things are done in a certain way or why the child reacts in a certain way is not discussed unless the student brings it up. Also, the supervising nurse can redirect the student's interventions to assist her own work plan, fragmenting the student's own planning. The facilitation process is driven by what the supervising nurse decides and also by what she needs assistance with. The supervisor's concern in the situation is to "getting the job done" and there is no time set aside for meeting or facilitating the student's learning needs.

The discussions are formed by the student's own questions, often focusing on skills and routines. The nursing perspective is narrow or broadened depending on the student's own understanding of what is salient in the situation.

The student is speaking with the child's parents about the plans for the child as the supervising nurse breaks in and tells the student to arrange for a change of beds (obs. 5).

The student is small talking with the child as the supervising nurse interrupts with the words "can you take over the administration of the medicine here? I need to get some coffee" (obs. 7).

3.3 Skills facilitator

In this theme the skill acquisition is the main concern. The supervising nurse directs the student to plan her work according to the discussion during the round. How to perform the technical/medical skills is in focus and the student spends most of the time to perform interventions and prepare prescribed drugs. The time is fragmented and directed by medicine delivery and the eventualities occurring. There is limited foresight about how to plan the day and supervision is done on a here-and-now basis focusing on skills needed to be gained by the student when performing the task at hand. The child's physical appearance and routines are prioritized. Discussions on other needs the child might have are limited.

The student asks about preparing drugs and administers them; the facilitating nurse explains how to do it (obs. 12).

After the round the supervising nurse and the student discuss how to organize the chores of the day (obs. 6).

3.4 The reflecting theme

In this theme the supervisor facilitates the student's awareness of the situation. The supervising nurse's concerns in the situation control the learning process, changing between the child's caring needs and the student's pedagogical needs. The pedagogical learning process departs in the child's needs and the supervisor weaves in the medical and physiological as well as behavioral aspects of the situation as support towards the child, not as a priority of its own. When unexpected

things occur they are weaved into the supervising process in a natural way, not fragmenting but rather facilitating a learning process and sometimes changing the concerns in the situation in accordance with the uncovered caring needs. The main concern in the supervising process is the child's well being and there is a clear start and end of interventions made. Also there is a timeframe following the child's rhythm surrounding the supervision. The common meaning appears to be supporting the child and broaden the student's awareness in the situation

3.5 Passive facilitation

In this pattern of supervising, the student works independently with her own patient and the supervising nurse supervises the student's interventions quietly from distance. Taking a step back and putting her/himself in the background facilitate the student's learning process. The student's planning drives the process, the supervising nurse checks the student's planning of the day, and expect the student to call on her if she needs her help or an explanation on how to perform skills or follow routines. The student's own planning of the day and learning needs set the agenda for how time is spent. The nurse supervisor picks up on student questions to deepen the understanding of the situation by offering the student diverse perspective to consider.

The student prepares for taking stitches. She asks the facilitating nurse what she needs and how to perform it. The facilitating nurse emphasizes that the child might feel pain during the procedure and that she needs to take actions in advance (obs. 8).

3.6 Dialogical facilitation

In this pattern of supervising, the supervising nurse and the student work as a team. The supervising nurse takes on a guiding role to facilitate the learning process and is directing the students planning and interventions from diverse perspectives. The process is driven from the concerns of wellbeing for the child. The supervising nurse emphasizes the "how and why" by discussing with the student why it is important to take certain measures in diverse situations. He/she meets the student in dialogue about what is noticed during an intervention and why. The supervising nurses facilitate a deeper understanding by encouraging the student to reflect on the child's experiences and the significance of how the intervention is done. The technical/medical skills are weaved in as a support to the child's wellbeing in the situation; letting the child's rhythm regulate time for interventions.

The supervising nurse discusses with the student her planning for prescribed drugs, how she plans to administrate them and when, if she knows what they do with the organs in the child's body. How the student can observe the child for adverse effects (obs. 1).

4 Discussion

This study has its limitations as all studies do. One factor that which is strength and a limitation is the first author's contextual awareness of the PICU's in Sweden. Guba^[27] believes that it is important that the researcher knows the context that exists where data are collected. The surrounding context must be understood as well as what processes or standards are used in the context. However, there might be a risk in having knowledge about the context, things that occur can be taken for granted and miss judged. The neutrality in the study is facilitated by the researchers attempt to increase the distance between her and the participants, for example, by the length of the observations, interviews, and establishing the truth value as well as the applicability. The analysis was done in an exploratory way in which significant statements were interpreted by the researcher^[28]. Marton *et al.*^[29] believe that the data represents the actual empirical basis for the researcher's arguments for a particular interpretation. Since the same observations can have different meanings in different contexts, the interpretation must be made in relation to the context. When doing so this study shows that nurses' concerns in the supervision of the student in the clinical caring situation of the vulnerable child are closely connected with the quality of pedagogical tuition the student meets and in extension, the nursing care the child receives. The way the supervisor works can determine how the clinical learning process is facilitated. Research^[18, 30, 31] emphasizes that the

student, in order to gain new knowledge and integrate theoretical knowledge learnt in school, needs to build on their own prior knowledge. The content must be perceived as relevant for the student as well as the context. Also the student needs to be active in the learning process and not a passive receiver of information. The findings in this study elucidates that when the supervisor controls the learning process and the priority of the care given is focused on the medical attention and physical support, as in the Learning by doing theme, the student are facilitated to focus on a skill based and narrow view of the child's needs in the clinical complexity. In this theme the knowledge is fragmented and not connected to the child's individual caring needs or the context as a unified whole. The student is not allowed to work independently or in a collaborative way which might become a hindrance for the student to reflect and build on previous knowledge. This might mirror a lack of understanding of how important it is for the student's clinical learning that the supervisor has pedagogical knowledge and that the organizations facilitates a clear and purposeful pedagogical learning process in clinical supervision.

Consequently the findings also suggest that when the supervising nurse's concern is the child's wellbeing, a reflective and facilitating orientation occurs. Letting the child's caring needs be up front supports a pedagogical learning process towards a deeper understanding of the child's complex caring needs in a natural way. Also the understanding of how the interventions support the child's needs and why they are performed in a certain way are strengthened, giving the student practical examples of how theory links to practice. All these factors are of utmost importance to be able to keep pace with new knowledge, current practice, working according to the evidence-based regime. These are very important aspects to pay attention to if we want to promote a nursing care that embraces the nursing care process as suggested by Benner^[32] Benner *et al.*^[20] and Benner and Wrubel^[33]. A nursing care process that, according to Benner *et al.*^[20] and Benner and Wrubel^[25] addresses the holistic care, including the alleviation of vulnerability.

5 Clinical implications

It is time to highlight the importance of clinical supervisors' role in influencing and broadening the students' clinical learning. The supervisor's key role can either facilitate or hinder the student's ability to integrate theoretical knowledge and apply the knowledge in the practical context. As the supervisor often serves as a role model for the student this might have an immediate impact on how the student applies nursing care in the beginning of their career. In order to improve the clinical supervision process and give the students space for reflection and learning it is important that clinical supervisors have pedagogical education. The quality of nursing care is closely related to the quality of the clinical facilitation.

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