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Newly graduated nurses' socialisation resulting in limiting inquiry and one-sided use of knowledge sources-An ethnographic study

Voldbjerg, Siri Lygum; Wiechula, Rick; Sørensen, Erik Elgaard; GrønkJaer, Mette

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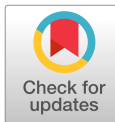
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Title

Newly graduated nurses' socialization resulting in limiting inquiry and one-sided use of knowledge sources
– An ethnographic study

Short running title

Graduates socialization into limiting inquiry

Authors

Siri Lygum Voldbjerg, RN, MScN, PhD, post doc, Clinical Nursing Research Unit, Aalborg University Hospital, Denmark & School of Nursing, University College of Northern Denmark, Denmark

e-mail: slv@ucn.dk

Rick Wiechula, BA, BN, MNSc, DNurs, Senior Lecturer, Adelaide Nursing School, University of Adelaide, Adelaide, SA, Australia & Centre for Evidence-based Practice South Australia: A Joanna Briggs Institute Centre of Excellence, Adelaide, SA, Australia & School of Master in Nursing, Universitas Muhammadiyah Yogyakarta, Yogyakarta, Indonesia

e-mail: rick.wiechula@adelaide.edu.au

Erik Elgaard Sørensen†, Professor, Department of Clinical Medicine, Aalborg University, Denmark & Clinical Nursing Research Unit, Aalborg University Hospital, Denmark

Mette Grønkjær, Professor, Department of Clinical Medicine, Aalborg University, Denmark & Clinical Nursing Research Unit, Aalborg University Hospital, Denmark

e-mail: mette.groenkjaer@rn.dk

Corresponding author

Siri Lygum Voldbjerg

Clinical Nursing Research Unit, Aalborg University Hospital

Sdr. Skovvej 15

9000 Aalborg

Denmark

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slv@ucn.dk

Phone: (+45) 72691082

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MRS. SIRI LYGUM VOLDBJERG (Orcid ID : 0000-0002-2622-5481)

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TITLE

Newly graduated nurses' socialization resulting in limiting inquiry and one-sided use of knowledge sources – An ethnographic study

ABSTARCT

Aim To explore how the socialization into the clinical setting and interaction between newly graduated nurses and experienced nurses influences the new graduates' use of knowledge sources.

Background Newly graduated nurses' use of knowledge sources in decision-making has been subject to an increased interest in relation to evidence-based practice. Despite interventions to strengthen nurses' competencies required for making reflective clinical decisions within an evidence-based practice, studies highlight that new graduates only draw on knowledge from research, patients and other components within evidence-based practice to a limited extent. Research exploring new graduates' use of knowledge sources calls attention to the experienced nurses' decisive role as a valued knowledge source. The new graduates' process of socialization and their interaction with the experienced nurse raises further questions.

Methods Ethnography using participant-observation and individual semi-structured interviews of nine newly graduated nurses from a University Hospital in Denmark. Data was collected in 2014. The study adheres to COREQ.

Results Two main structures were found: 'Striving for acknowledgment' and 'Unintentionally suppressed inquiry'.

Conclusions New graduates are socialized into limiting their inquiry on clinical practice and unintentionally being restricted to using the experienced nurse as predominant knowledge source.

Depending on how the experienced nurse responds to the role as predominant knowledge source, they could either limit or nurture the new graduates' inquiry into practice and thus the variety of knowledge sources used in clinical decision-making. Limited inquiry into the complexity of nursing practice indirectly excludes the use of a variety of knowledge sources, which are fundamental to an evidence-based practice.

Relevance If clinical practice wishes to benefit from the newly graduated nurses' inquiring approach and skills within evidence-based practice, clinical practice will have to greet the nurses with a supportive culture where questioning practice is seen as a strength rather than a sign of insecurity and incompetence.

KEYWORDS

critical thinking, decision making, evidence-based practice, knowledge, new graduate nurses, socialization, professional practice, role models

MAIN TEXT

INTRODUCTION

Newly graduated nurses' use of knowledge sources in clinical decision-making has been the subject of increasing interest in relation to implementation of evidence-based practice (EBP) (Wangenstein et al. 2010a; Rudman et al., 2012; Voldbjerg et al., 2017). In response to health care environments' increased requirement that practice that is evidence-based, nursing educators internationally have implemented several curricula interventions. These have intended to strengthen nurses' capacity to make reflective clinical decisions based on a variety of knowledge sources such as research evidence, clinical expertise, patients' preferences and context (Rycroft-Malone et al., 2004; Cronje et al., 2010; Melnyk et al., 2014; Malik et al., 2015). Generally, curricula include courses where students gain skills in retrieving, appraising and applying research evidence to practice (Cronje et al., 2010; Melnyk et al., 2014). In spite of these interventions, studies highlight that newly graduated nurses only draw on knowledge from research, patients and other components within EBP to a limited extent. They mainly rely on the experienced nurse as a source of knowledge and adhere to established procedures, routines and practices without further reflection (Rudman et al., 2012; Malik et al., 2015; Voldbjerg et al., 2017). The limited use of research evidence and patient involvement in clinical decision-making is undesirable, as research underlines that implementation of evidence-based practice, where decisions are based on reflection and use of a variety of knowledge sources, leads to improved patient outcomes, and reduced costs (Melnyk et al., 2012; Melnyk et al., 2014). It is therefore relevant to explore what influences the newly graduated nurses' use of knowledge sources in clinical decision-making and particularly the role of socialization.

BACKGROUND

Evidence-based practice frames a process of decision-making based on practitioner-patient interaction, using robust evidence from research, patient experience and preferences, 'local' data and 'professional knowledge/clinical experience' (Rycroft-Malone et al., 2004). Evidence-based practice implies the reflective use of several knowledge sources and calls for transparent and justifiable decisions where nurses exhibit that they know what to do and why (Garbett, 2004). Decisions are expected to be taken on a conscious well founded knowledge base requiring a reflective and articulate approach on clinical decision-making (Mantzoukas, 2008) in which intuitive as well as rational and propositional knowledge sources are articulated and reflected upon (Rycroft-Malone et al., 2004; Higgs et al., 2008). Clinical decision making is a social process influenced by

culture, norms, and standards as well as the situation and the more or less explicit values exhibited by colleagues (Higgs et al., 2008). Organizational and contextual factors such as time pressure, workload, and lack of leadership and peer support have been reported to influence the implementation of EBP (Squires et al., 2011; Malik 2015).

Newly graduated nurses are, with their education and training within EBP, expected to contribute to the implementation of an EBP culture within the clinical practice setting (Rudman et al., 2012; Melnyk et al., 2014). However, studies underline that transition into clinical practice, educational preparation and the culture of the unit influences which knowledge sources newly graduated nurses use and how they use them (Gerrish & Clayton, 2004; Maben et al., 2006; Duchscher, 2009; Haddad et al., 2017). The often overwhelming transition between education and clinical practice, which has been described as 'reality shock' (Kramer, 1974) and 'transition shock' (Duchscher, 2009) leaves the newly graduated nurses disillusioned and with a feeling of unpreparedness making them less confident as to what they know. This leaves them with feelings of uncertainty and inadequacy, which may hinder their ability to use their acquired skills within evidence-based practice (Maben et al., 2006; Mooney, 2007) and indirectly leads them towards experienced colleagues as the predominant knowledge source (Voldbjerg et al., 2017).

Newly graduated nurses find themselves in a transition between education and clinical practice where they often experience a gap between the ideals taught in nursing education and the realities of clinical practice (Hickerson et al., 2016; Ankers et al., 2018). A review by Gardiner and Shenn (2016) reported that newly graduated nurses experience high levels of physical and psychological stress, burnout, heavy workload, and horizontal violence. The process of socialization into the clinical setting has been documented as overwhelming and stressful due to differences between the professional values taught in nursing education and the organizational values in the clinical setting (Feng and Tsai, 2012; Phillips et al., 2015; Hickerson et al., 2016; Ankers et al., 2018). An ethnographic study by Voldbjerg et al. (2017) exploring newly graduated nurses use of knowledge sources reported that newly graduated nurses' questions and reflections on clinical practice are limited and although using a variety of knowledge sources, the experienced nurse was the predominant source used most often over more evidentiary relevant sources. The primary reliance on experiential knowledge from nursing colleagues which has previously been reported by Gerrish and Clayton (2004) and Malik et al. (2015) calls for attention to the experienced nurses' decisive role as to which knowledge sources are valued and used. The interaction between the newly graduated nurse and experienced nurse and the newly graduated nurses' process of socialization raises further

questions. This study presents additional findings from a study investigating newly graduated nurses use of knowledge sources in clinical decision-making (Voldbjerg et al., 2016; Voldbjerg et al., 2017). In this previous work, the overwhelming and stressful process of socialization into clinical practice proved particularly relevant in understanding newly graduated nurse's clinical decision-making. Furthermore, there is a knowledge gap as to how socialisation influences newly graduated nurse's decision-making. Thus, the aim of this study is to explore how the socialization into the clinical setting and interaction between newly graduated nurses and experienced nurses influences the newly graduated nurses' use of knowledge sources.

METHODS

Ethnography using principles within focused ethnography (Knoblauch, 2005) was chosen as methodology. Clinical decision-making is a social process influenced by the situation, the culture and the context as much as by the individual (Higgs and Jones 2008). Ethnography allows for the understanding of contexts, processes and meanings from the informants' perspective (LeCompte and Schensul 2010). Due to the researcher's insight and familiarity with the field researched and time restriction, principles within focused ethnography were applied (Knoblauch, 2005). Principles which accentuate the importance of a reflective approach to the researcher's role, preunderstanding, and values (Knoblauch 2005).

Informants and setting

Eleven nurses were initially purposively sampled however, two nurses withdrew due to job change. Nine female informants from four medical wards, three surgical wards and one operating unit at a metropolitan University Hospital in Denmark agreed to participate. Inclusion criteria were clinical experience between 6 to 18 months at time of inclusion. The informants had a bachelor's degree from the same School of Nursing in Denmark. The informants had at the time of observation between 9 to 20 months of clinical experience. Although they had all been part of an introductory programme the first few months of their employment, none of the informants had an official mentor or preceptor allocated at the time of observation. Three of the informants had received a formal orientation to the medical specialty they worked within. Informants were recruited through ward managers having received written information describing the project.

Data collection

The first author entered the field as an observer-as-participant with limited involvement (Gold, 1958; Kawulich, 2005). Each informant was observed in their daily work for one to three 8-hour

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shifts resulting in a total of 174 hours of observation. The observer shadowed the informant and in order to keep working routines close to usual practice without distraction, the informant was not questioned while being observed. The observations were descriptive, noting the nurses' actions, interactions with colleagues and patients, statements, language, and contextual factors such as noise, surroundings, and work organisation. Additionally, field notes were taken continuously alongside reflective notes which were used to elaborate on the following data analysis. Hence, the observer continuously reflected on the process of data collection from a variety of perspectives in order to ensure that important information was included. Observations were immediately followed by the semi-structured interviews undertaken by the first author in undisturbed quiet room within the hospital where the informant worked. The interviews lasted between 35-75 minutes and were audio recorded. A semi-structured interview guide initially consisting of questions categorized within the two topics 'knowledge sources' and 'being a newly graduated nurse' was developed on the basis of a review of literature on newly graduated nurses' use of knowledge sources in clinical decision-making and transition to clinical practice. The interview guide was refined and elaborated on following the analysis of data from the initial three observations and interviews. This resulted in the third topic 'reflection on practice' being added to the semi structured interview guide. To capture the informant's own perceptions and choice of wording, descriptive questions were posed followed by more focused and open-ended questions. The collection of data continued until a point of saturation was reached, i.e. where data supported the developed patterns and no new information refuted the defined patterns (LeCompte & Schensul, 2010; Bazeley, 2013). Acknowledging that the first author inherently became part of the setting explored, influencing the site, the data collection and the analysis of data, (LeCompte and Schensul 2010) there was a continuous reflection with fellow researchers on the first author's role and influence on the research process. Reflections that subsequently were included in the analysis of data. Data was collected between May to November 2014.

Data analysis

Data collection and analysis was carried out in a recursive process inspired by LeCompte and Schensul's (1999) approach to analysis and interpretation of ethnographic data. The analysis commenced as soon as the first author entered the field. The initial purpose was to refine the focus of the study and the research questions to get a better insight into the use of knowledge sources (LeCompte & Schensul, 1999). Following the first three observations, field notes, interviews, reflective notes, and audio recordings were transcribed and analysed by the first author. Data were manually coded where preliminary categories were defined, and interview questions and

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observations were specified and refined. The data from the rest of the informants were transcribed and analysed after each observation and interview. All data were subsequently read several times by the first author to get a thorough insight and attain familiarity with the transcribed data. Reflective notes on thoughts, ideas and questions in relation to the data were kept in a filed journal and used in further analyses. Items reflecting how interaction between newly graduated nurses and experienced nurses influenced use of knowledge sources were identified and coded by a line-by-line review of the data. Coded passages were discussed with the authors. Coded items conveying similar ideas were categorized. To retrieve patterns and structures on how the interaction between newly graduated nurses and experienced nurses influence their use of knowledge sources the analysis was guided by questions (Table 1). Ultimately, the authors explored the meaning, interrelationship and significance of the retrieved patterns and structures within a context of health care and nursing education and discussed them in the view of previous relevant theory and research (LeCompte & Schensul, 1999).

(Please insert Table 1 around here)

Ethical considerations

Approval for the study was obtained from the Scientific Ethical Committee of North Denmark Region (Project number: 2008-58-0028). Recommendations from The Code of Ethics of the World Medical Association (Declaration of Helsinki) were followed. All informants signed a consent form stating that they had received written and verbal information on the project and that they at any given time could withdraw from the project. Data were anonymized and audio recordings deleted following transcriptions. The study adheres to the 'Consolidated criteria for reporting qualitative research' (Supplementary File 1).

FINDINGS

The two main structures '*Striving for acknowledgment*' and '*Unintentionally suppressed inquiry*' were developed from the analysis. The two structures are described separately but are interconnected and influence one another. The structures are unfolded in the following supported by citations from interviews and observations.

Striving for acknowledgment

The newly graduated nurses' initial time in clinical practice was filled with contrasting feelings and expectations. Discrepancies between what they were taught nursing 'is' in their undergraduate education and what they perceived was required from them in clinical practice made them feel

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inadequate, insecure and not equipped for the job. The feeling of inadequacy made them seek comfort through striving for acknowledgment by being accepted as part of the nursing team. The feeling of inadequacy was based on a combination of their own ideals about what nursing is, the sense of having insufficient knowledge and a perception of high expectations from the clinicians they worked with. The newly graduated nurses described their transition from nurse education into clinical practice as tough months that were overwhelming, insecure and very difficult. When asked about the transition into clinical practice, one nurse answered:

I think it was really, really hard. I think it was the transition. I did not really feel that I was competent enough as a nurse and I did not feel I could handle my tasks. It may well be that it is because I have high standards for myself. That might be why I had that feeling, but I have also talked to nurses that I studied with and they also thought it was incredibly difficult. (Interview Informant 6).

The newly graduated nurse did not feel skilled and competent enough to care for the patients they were assigned, due to a sense of not being able to live up to their own standards. The newly graduated nurses entered practice with ideals of what nursing should be. This was rooted in an educational focus on nursing theories highlighting holistic care, and the importance of treating patients individually. They became confused when their ideals on nursing did not correspond to the practice they encountered.

'We (new graduates) know a whole lot from nursing school, but it's just something else in real life. All the sudden you have to communicate with the patient, verbally and non-verbally. How is it you do that? Should I cross my arms, where should I stand, what should I say and how should I look at the patient? This ward is busy. How is it that I am supposed to sit down for five minutes, and talk to the patient and then maybe it takes 10 minutes, because that is what he needs, but then again five minutes ago I should have been attending another patient? How do I do that? You don't learn that in school' (Interview Informant 4).

The nurse felt inadequately prepared on how to put theory into practice in a real life setting. Their ideals of how nursing is supposed to be and how they attain this did not correspond to the requirements and context of clinical practice. Another nurse was more positive towards her first year in clinical practice and described it as *'hard but exciting'* (Interview Informant 1). Her different

reporting may be due to her being age-wise more mature and having previous work experience within another profession.

The newly graduated nurses lacked knowledge on the medical specialty within which they worked, which hindered their assessment of patients and their ability to question their own care.

After administering pain medication to a patient in pain, we walked back to the nurses' station. I (the researcher) asked the nurse what the patients' diagnosis is. She says it is coxitis, but she can't explain what it is and what it is caused by (Field notes Informant 3).

The nurse lacked knowledge on the patient's medical condition. In the concluding field notes, it was summarized that the nurse had administered pain medication throughout the shift to the patient without knowing what coxitis is and there did not seem to be a systematic observation and pain assessment of the patient (Field notes Informant 3). The newly graduated nurses' feelings of being unprepared was reinforced by their perception of the expectations from clinical practice as to the complexity of care they were expected to manage. These expectations were not directly articulated by clinical staff but were indirectly asserted by the kind of patients the nurses were assigned. This was illustrated at a morning shift where patients were allocated among the nurses:

Informant gets a patient assigned by the more experienced nurse. Informant says out loud 'I think it is a lot to handle'. She says it twice. The experienced nurse does not react to these comments. The newly graduated nurse accepts caring for the patient (Field notes Informant 3).

The newly graduated nurse is overwhelmed by the care required, tries to express her concern about not being able to care for the patient and this is overheard by the more experienced nurse. In the field notes, it is described that within two hours the patients' health status deteriorated to a concerning status with respiratory and circulatory deficit. After trying to manage the situation with a healthcare assistant, the graduate nurse called for help and physicians and more experienced nurses took over. The graduate nurse left the patients room and broke down crying (Field notes Informant 3). The nurse succumbed to the notion that she was not competent to meet the expectations of the more experienced nurse. Several newly graduated nurses reported that they

were 'thrown into care' resulting in a feeling of insecurity, reinforced by their perception of not having the knowledge, skills and competency to care for the patients.

Feeling insecure and inadequate as nurses, the newly graduated nurses sought comfort through trying to be accepted by the team of nurses and through attaining independency. The newly graduated nurses felt that to be accepted as part of the team, they had to prove their worth, which was partly done by not showing uncertainty as to what to do and through not questioning practice, but to contribute to the daily work routines and use time sensibly. Asked about a situation where a nurse was observed feeling confused and uncomfortable about how to care for a patient, she answered:

Well it has to do with me learning to express when something makes me uncomfortable and insecure like saying 'Can you help me?', but then again we're not 100 at work, it's a busy ward and we have to be effective and when we're cut in staffing,....well there are a lot of reasons for ending up in a situation where you feel insecure and uncomfortable (Interview Informant 3)

The newly graduated nurses often ended up in situations that were too complex for them, but due to personal and contextual factors were reluctant to ask for help. The situations often resulted in a feeling of failure and not being able live up to what they perceived the ward expected them to deliver. Being acknowledged as a nurse was about being accepted as part of the nursing team, which included sharing a common responsibility of getting the job done and keeping the ward running. It was about getting the other nurses to gain a trust in you as a nurse '*..them (nursing staff) having to gain trust in you, that was hard*' (Interview Informant 2). The newly graduated nurses felt they had to give their fair share of the work in an environment of time pressures, colleagues on sick leave and staff cuts. They did not feel that there was a place or space to expose their uncertainty if they wanted to become socially accepted. In addition to seeking acknowledgment among nurse colleagues, they strove to attain independence in their search for comfort. Through attaining clinical experience, they slowly established a trust in their own ability as nurses. They primarily focused on learning routines and the common procedures of the ward in order to contribute to daily work:

It's the fact that you learn the routines of the ward. It makes you feel more comfortable knowing what you are doing. But you also feel a bit of a burden and nuisance always having to ask for help, always having to ask how to do this and that (Interview Informant 6).

Getting to a point where tasks became routine and they could handle situations or set procedures strengthened their feeling of independence and ultimately gave them a sense of safety and comfort. Feeling independent was attained by being able 'to do' without having to seek advice. Asking for help and questioning practice was not always perceived as welcome.

The fact that when you are new it's difficult to ask for help. I have just started to learn to ask for help, but it's still difficult when being new and you're in a temporary position and you don't want to become unwanted, but on the other hand I know that they would help me if things go wrong (Interview Informant 3).

Even after they had settled into the ward and were feeling more comfortable, the newly graduated nurses were concerned that displaying uncertainty impacted on opportunities for a permanent job. The nurses perceived that there was an underlying notion that being an independent nurse was one who got the job done without asking too many questions. Questions were perceived as a sign of insecurity rather than independence. The experienced nurses' appreciation and acknowledgment of the newly graduated nurses' knowledge was essential to their understanding of themselves as nurses and their ability to contribute valuably to nursing care. This was emphasized when being asked for advice by their more experienced colleagues. This critically influenced their own perception of being a 'real nurse'. As one nurse reports:

Lately the experienced nurses, who have been here longer than me, have started to ask me for advice and I'm like 'Wow', this must mean that I'm doing better. It must be a sign that they also think that I'm getting good enough for them to ask me for advice. It's a new feeling (Interview Informant 9)

The newly graduated nurses' expression that 'it is a new feeling' that she is considered a valued knowledge sources underlines the lack of attention towards the newly graduated nurses already having valuable knowledge that could contribute to nursing care. The lack of acknowledgment that may reinforce the newly graduated nurses' feeling of inadequacy and their perception of themselves as 'not knowing anything' ultimately influencing their questioning of clinical practice.

Unintentionally suppressed inquiry

The newly graduated nurses' need to display independence and their striving for acknowledgment in order to be accepted as part of the team influenced where they sought advice, what sort of

questions they asked and what made them question or kept them from questioning clinical practice. When newly graduated nurses had questions concerning patient care, the questions were primarily restricted to routines, procedures, and tasks. The questions' objective was primarily to obtain guidance on 'how to' rather than a more critical reflective approach aimed at addressing both a 'how to' and a 'why'. The experienced nurse was the predominant knowledge source used when the newly graduated nurses were unsure about clinical decisions. *'If I'm in a situation I have not experienced before I ask my colleagues (the experienced nurses) about how they would do or how they usually do it'* (Interview Informant 2). The experienced nurse was asked for advice even though the information sought could have been found in more relevant sources: *'The newly graduated nurse asks the experienced nurse for advice regarding precautions on infection control. Clinical guidelines concerning the same matter are displayed on the door entering the patients' room'* (Field notes Informant 2). Asking the nurse for advice seemed to be an essential social element for their acceptance as becoming part of the nursing team or 'part of the family'. Asking the nurse was a sign of recognition of their expertise. In addition, it was important that the newly graduated also received recognition, and this was often not forthcoming. As quoted by one nurse:

You have to find your place within the ward and well nobody really asked me, just like you did (interviewer). There wasn't really anyone who asked the newly graduated nurses what they would do, because it's just like the graduates have to be trained into the ward's culture and practices and 'that is how we do it here', so that you become part of this little family. I do not think that they're using the knowledge the graduates have. There are good intentions, but it is not happening (Interview Informant 6).

The newly graduated nurses' need to be acknowledged and become part of the family meant that they had to 'do it the way the others do it' and this often meant not questioning established practices, nor did it include using the newly graduates as a valuable knowledge sources. When the newly graduated nurses questioned practice, questions primarily focused on task oriented care and routines concerning procedures such as change of dressings (Field notes Informant 3 and 7), administration of medication (Field notes informant 2,3 6 and 7), taking blood and urine samples (Field notes Informant 3 and 7), and setting up fluids and medication (Field notes informant 7 and 8). Issues concerning communication with patients and particularly the establishment of trust and developing a therapeutic relationship were seldom questioned. Thoughts and reflections on a patient showing signs of anxiety before an operation (Field notes Informant 1), issues of communication and establishment of trust with a child admitted to an adult ward (Field notes

Informant 5), or how to incorporate the relatives in the patients treatment (Field Notes Informant 4) were seldom questioned and reflected upon although these situations often caused concern on how to care for the patient. Questions posed to the experienced nurse were often answered with a 'this is how we do it' answer.

'Interviewer: When you ask a colleague how to do something, what is the typical answer?

Informant: It's 'If it was me I would do it like this' (Interview Informant 7).

'Experienced nurse tells the newly graduated nurse: If you have any questions, I'll show you how to do it' (Field notes Informant 2).

Answers were seldom followed by an explanation of why and rarely with a reference to a guideline, procedure, research or theory. Reflective answers were limited.

The newly graduated nurses sought advice when they were confronted by something unknown, felt uncertain about what to do or when something did not go as expected:

'Informant is called to the patients' room. Patient says it itches all over. Informant has just given him a newly prescribed medication. She tells me she suspects it's a side effect. She asks the experienced nurse if she has experienced this previously' (Field notes Informant 2).

In general responses fitted with the maxim of 'this is the way we do it here' however, when something out of the ordinary happened it was an occasion for further questioning:

'Nobody questions within the specialty because it has been like this for years, but when something new comes in, like patients who have been treated differently at another ward, you suddenly have to ask why you do it this way' (Interview Informant 6).

To question or reconsider practice there had to be an instance, which differed from the norm, such as patients reacting unexpectedly to the medication given or being confronted with a practice done differently from the usual. There were other situations, which seemed to support and encourage the newly graduated nurses' questioning of clinical practice. This occurred when the nurses were in a group with a collective concern: *'It's easier to question when it's a whole group of nurses who question why we do it like that, rather than being a new graduate questioning why we do it like that'*

(Interview Informant 6). It was considered more legitimate to question as a group than as a single individual where there was a risk of displaying one's ignorance. Having a scheduled set time for reflection where nurses no matter experience discussed patient care seemed to support reflective and questioning practice:

'When we meet up at one o'clock as a team of nurses and discuss issues concerning specific patients, then we get to reflect together. It is the management. They prioritize it highly. It gives us a little break and the opportunity for us to develop as nurses. It ignites thought processes together as a team '(Interview Informant 9).

Group meetings initiated by the management and the fact that the group was constructed across different levels of experience legitimized questioning care and somewhat indirectly reflected that questioning one's own and others' practice is an important part of being a nurse and caring safely for patients. The overall perception was however that inquiry was suppressed, albeit unintentionally, due to a socialisation into a practice culture characterized by a lack of clear and articulated reflection, which influenced the newly graduates' questions and ultimately their use of knowledge sources. An influence which often resulted in a one-sided use of knowledge sources in clinical decision-making leaving others and sometimes more evidentiary knowledge sources out.

DISCUSSION

The aim of this study was to explore how the socialization of newly graduated into the clinical setting and interaction between newly graduated nurses and experienced nurses influences the newly graduated nurses' use of knowledge sources. This study found two interacting structures: *'Striving for acknowledgment'* and *'Unintentionally suppressed inquiry'*. The structures described how newly graduated nurses' feelings of inadequacy made them seek comfort by accommodating to the ward culture and learning routines and task-oriented procedures which in turn would give them a sense of independence. When the new graduates' asked questions about practice it mainly involved the wards' routines and procedures and answers were primarily sought among the experienced nurses as part of socialization and becoming 'part of the family'. Adhering uncritically to established routines and practices resulted in aspects of nursing practice seldom being questioned and reflected upon and resulted in a one-sided use of knowledge sources. As previously reported in Spenceley, O'Leary, Chizawsky, Ross and Estabrooks (2008), established practices are often not questioned, partly due to an underlying notion that questions could be an unwelcome sign of uncertainty,

inexperience and/or due to a lack of theoretical and practical knowledge regarding specialist practice.

The newly graduated nurses entered practice with ideals of nursing care but, as they were confronted with another reality, they quickly adapted to the working culture of the ward with its understanding of what nursing is and how it is practiced in that setting. As previously reported, newly graduated nurses adopt often implicit values, attitudes and rules of the organization through the process of professional socialization (Mooney, 2007). Studies underline that the newly graduated nurses' perception of social acceptance and their feeling of belonging is central to their wellbeing (van Rooyen et al., 2018; Frügéli et al., 2019). As socialization is inevitable, there is a call to consider how and under what circumstances newly graduated nurses are socialized into the profession and the consequences of this socialization (Mooney, 2007; Phillips et al., 2015; Frügéli et al., 2019).

Results from this study underlines the relevance of considering what gives social acceptance between colleagues. Does 'becoming part of the family' mean adhering to usual established practices or is it by having a curious and questioning approach to practice? Although a questioning approach is a prerequisite for an evidence-based practice (Melnik et al., 2014), this study revealed that questions primarily concerned guidance on 'how to' rather than a reflective approach as to 'why'.

In this study, the newly graduated nurses were often assigned to care for complex patients from early on. New nurses being required to move out of the newcomer role too quickly by being assigned the full responsibility of patient care and therefore not having the opportunity to develop task mastery has previously been reported by Pellico, Brewer and Kovner (2009). Being assigned to patients that seemed too complex compared to their skills and competencies, made the newly graduated nurses unsure as to what was expected from them and brought them into situations where they felt insufficient as to task mastery. The level of role clarity and task mastery has been highlighted to influence stress levels among newly graduated nurses (Frügéli et al., 2019). The higher level of role clarity and task mastery the lower level of stress (Frügéli et al., 2019). Entering clinical practice with a basic nurse education and a perception of not having the skills and competencies required from the ward, the willingness to inquire was guided by their need to be accepted.

Furthermore, limited theoretical and experiential knowledge concerning the medical specialty they worked within actually restricted their questioning. Inquiry presupposes a feeling of uncertainty promoted by a sense of unfamiliarity and a perceived need for knowledge (Cranley et al., 2012). However, the newly graduated nurses may not even get to this point of uncertainty to challenge practice because they lacked the fundamental knowledge to then construct and ask appropriate

questions. As highlighted in a study by Phillips, Esterman, and Kenny (2015) there is a call for attention as to the need for orientation programs encompassing a thorough orientation where newly graduated nurses are given the opportunity to acquire fundamental knowledge on the speciality, appropriate patient allocation, and respect from co-workers.

The newly graduated nurses' feeling of uncertainty and inadequacy made them look for support among the experienced nurses. When entering new social communities, role models are sought (Maben et al. 2006) and it is often the more experienced nurses that model the 'way of doing it' which is then followed (Malik et al., 2015; Voldbjerg et al., 2017). In this study, the newly graduated nurses were highly dependent on the experienced nurses' clinical expertise because they themselves lacked the specialist knowledge and experience. Their professional role adaption was therefore highly influenced by the experienced nurse and their way of understanding and practicing nursing. Although newly graduated nurses have developed the ability to question clinical practice and think critically (Profetto-McGrath, 2005) they require an intellectually and emotionally supportive environment with a questioning and critically reflecting approach to be able to use these abilities (Mann et al., 2009; Fero et al., 2009). This leaves a great responsibility as the experienced nurse becomes the primary source of knowledge in situations of doubt. Thus, the experienced nurse influences how and which knowledge sources the newly graduated nurses seek.

Evidence-based practice requires an ongoing questioning of clinical practice where reflection is the core component (Mantzoukas 2008; Melnyk et al.; 2014). To spark questions on well-established routines and practices, 'outsiders' (Flemming & Fenton, 2002), like the newly graduated nurses who are curious, eager learners and wanting to be challenged (Wangensteen et al., 2010b) would be pertinent to use as facilitators of evidence-based practice. Nursing students are educated and trained to be inquiring and questioning practitioners (Johnston & Fineout-Overholt, 2005). However, for their skills to be of value in clinical practice they have to be supported in their use of knowledge, skills and competencies that they have appropriated through undergraduate education and not just being told what to do. A study by Daws, McBrearty and Bell (2020) emphasizes that the feeling of confidence is central to the newly graduated nurses' wellbeing and sense of belonging and that the confidence is impacted positively by a social environment where questions are welcomed (Daws et al., 2020). Furthermore, studies underline that being part of a supportive work environment where newly graduated nurses feel welcomed, respected and accepted as part of the nursing team, especially by the more experienced nurses, reduces levels of stress and increases job satisfaction (Phillips et al., 2014; Gardiner & Shenn, 2016). The experienced nurse as a role model plays a central

role in the promotion of a questioning approach and critical thinking (Raymond et al., 2018). To promote the use of a variety of knowledge sources in clinical decision making, the experienced nurse as primary knowledge source is imperative in establishing a social environment where inquiry on clinical practice and critical reflection are welcomed necessities of clinical practice.

STUDY LIMITATIONS

Socialisation of newly graduated nurses is a complex and multifarious topic. This study only reports on how socialisation influences newly graduated nurses use of knowledge sources in decision-making. The informants' self-selection for participation may have caused bias as the sample might be limited to newly graduated nurses with surplus and therefore not necessarily mirroring the general newly graduated nurse. However, the self-selection was a necessary condition to gain trust and access to their world of newly graduated nurses (Gerrish, 2003). The primary researcher has a background in nursing as a clinician and educator and therefore has insight into the field. Rather than perceiving this as a bias, the theoretical and practical background were seen as strengths for collecting and analysing data (Morse, 2010). Preunderstandings and values, which may have restricted the collection and analysis of data was challenged through reflexive journaling, reflections with fellow researchers and by recapturing and summarizing informants' statements during the interview (Morse 2010; Bazeley 2013). Triangulation with a comparison of data between observation and interview and data from different settings was used for validation (Bazeley, 2013). Transferability of the findings may be limited as that study is contextually bound (Bazeley, 2013), however the consistency with other international studies is a strength.

CONCLUSION

Newly graduated nurses are socialized into limiting inquiry on clinical practice and unintentionally restricted to using the experienced nurse as predominant knowledge source. The knowledge sources used in clinical decision-making are influenced by the type of questions newly graduated nurses pose. The questions are partly formed by their educational knowledge base, expectations from the clinical environment and the experienced nurse. Depending on how the experienced nurse responds to the role as a predominant knowledge source, they can either limit or nurture the newly graduated nurses' inquiry into clinical practice and thus the variety of knowledge sources used in clinical decision-making. A lack of questioning the complexity of nursing practice indirectly excludes the use of a variety of knowledge sources which are fundamental to an evidence-based practice.

RELEVANCE TO CLINICAL PRACTICE

There is a need to consider on an organisational and individual level how newly graduated nurses are socialized into the clinical practice and how this influences the establishment of an evidence-based culture. If clinical practice is to benefit from the newly graduated nurses' inquiring approach and skills within evidence-based practice, clinical practice will have to greet the nurses with a supporting culture where questioning practice is seen as a strength rather than a sign of insecurity and incompetence. Opening up for a wider range of questions guided by not just how, but also why, may open up for the reflective use of a variety of knowledge sources and thereby drawing attention to the importance of involving patients and incorporating research evidence in clinical decision-making. There is a need for orientation programs where newly graduated nurses can acquire fundamental knowledge and skills on the speciality they work within. They should be allocated patients considering their beginning skills and competencies and be assigned to experienced nurses who role-model an evidence-based practice.

CONFLICT OF INTEREST

No conflict of interest has been declared by the authors.

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IMPACT STATEMENT:

What does this paper contribute to the wider global clinical community?

- Newly graduated nurses are socialized into limited inquiry on clinical practice, influencing the reflective use of a variety of knowledge sources in clinical decision-making.
- The experienced nurse plays a central role in establishing a social environment where inquiry on clinical practice and critical reflection are welcomed necessities of an evidence-based clinical practice.
- There is a need to consider on an organisational and individual level how newly graduated nurses are socialized into the clinical practice and how this influences the establishment of an evidence-based culture.

TABLE 1 Questions guiding the analysis

What do the new graduates seek advice about?

When do they seek advice?

How do they seek advice?

How are the questions posed?

What ignites the questions/advice-seeking?

In which situations do they not seek advice?

How do colleagues respond to the questions?

Is there always a connection between time and the use of colleagues as a knowledge source?