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Abstract

Interprofessional collaboration involves some kind of knowledge sharing, which is essential and will be important in the future in regard to the opportunities and challenges in practices for delivering safe and effective healthcare. Nursing assistants are seldom mentioned as a group of health care workers that contribute to interprofessional collaboration in health care practice. The aim of this ethnographic study was to explore how the nursing assistant´s knowledge can be shared in a team on a spinal cord injury rehabilitation ward. Using a sociomaterial perspective on practice, we captured different aspects of interprofessional collaboration in health care. The findings reveal how knowledge was shared between professionals, depending on different kinds of practice architecture. These specific cultural-discursive, material-economic and social-political arrangements enabled possibilities through which nursing assistants´ knowledge informed other practices, and others´ knowledge informed the practice of nursing assistants. By studying what health care professionals actually do and say in practice, we found that the nursing assistants could make a valuable contribution of knowledge to the team.

Keywords: collaboration, ethnography, nursing assistant, professional knowledge, professional practice, sociomaterial, team work

Introduction

This paper, drawn from an ethnographic research project at a spinal cord injury rehabilitation ward in Sweden, focuses on the crucial role of knowledge sharing in interprofessional practice. The central point of this paper is how sociomaterial arrangements enable and constrain the possibilities for nursing assistants to share knowledge with nurses, doctors and

others and vice versa in a team during the daily care work. Traditionally, the nursing assistant often work close to the nurses, at the bedside with the patients. Nursing assistants recognize and inform the nurses about any concerns regarding the patients (Bach, Kessler & Heron, 2012), but nursing assistants are still often not fully included in the group of professionals working close to the patients. More systematic knowledge of how the practices of nursing assistants relate to the practices of the professional team may have potential for enhancing collaboration and patient safety in health care.

Sharing knowledge is considered crucial for successful collaboration between all professionals in health care but there is a challenge to maintain continuity across time and space (Zwarenstein & Reeves, 2006). Previous findings from this research project at the spinal cord injury rehabilitation ward revealed how knowledge emerged and was shared between different professionals in an interprofessional health care practice in different patterns in a constantly ongoing process. The relationships between team members can be seen as constituting a knowledge practice which implies ongoing learning (Lindh Falk, Hopwood & Abrandt Dahlgren, 2017).

Research has also shown that there are differences in the way the individual professionals construe, use and communicate professional knowledge (Fenwick & Nerland, 2014) which can be a challenge for interprofessional collaboration. The reasons for these diversities can be different work responsibilities, social status or culture and different competencies (Anthoine, Delmas, Coutherut & Moret, 2014). In a literature review about the role of nursing assistants, Munn, Tufanaru and Aromataris (2013) summarize that there is an ambiguity regarding the roles and tasks that they fill in current health care system, especially in relation to the role and tasks of registered nurses. Several studies have reported a lack of trust in the relationship

between registered nurses and nursing assistants (Kalisch, 2009; Potter & Grant, 2004; Spilsbury & Meyer, 2004). Today, many registered nurses have a great responsibility for administration and documentation duties, and thus have less time to spend with the patients. This means that the nursing assistants are often the ones working closest to the patients, and are thereby in a position to capture important knowledge regarding them.

When it comes to research about interprofessional collaboration in health care, the nursing assistant is seldom mentioned as someone that contributes to the collaboration. Gray et al. (2016) highlighted the importance of the nursing assistants being accepted as team members and experiencing the mutual respect between team members regarding what is known about the patients. Other authors argue that interaction with patients at the bedside makes it possible, through the nursing assistants, to gather much important information, but that there are few opportunities for them to share their knowledge about patients with other team members (Dellefield, 2006; Kontos, Miller, & Mitchell, 2009; Lloyd, Schneider, Scales, Bailey, & Jones, 2011). Nursing assistants seldom attend ward rounds and their voices are missing when care plans are discussed. The role that nursing assistants play varies widely and includes both clinical and non-clinical duties. In Sweden, a nursing assistant has 2-3 years of education at upper secondary school level and is trained to observe and assess a patient's condition, but the duties vary depending on the regulations of the health care system. However, nursing assistants in general are responsible for observing and responding to patients' direct care needs on a daily basis (Kontos, et al., 2009).

Several authors, (Croker, Trede, & Higgs, 2012; Kalisch & Hee Lee, 2011; Kvarnström, 2008; McDonald, et al., 2009; Sargeant, Loney, & Murphy, 2008; White et al., 2012) have all, in different studies, said that factors such as communication, trust, time and responsibility

are necessary for different professionals to work effectively together. Ideas about what interprofessional collaboration involves and how it actually works in practice, still remain underdeveloped in a theoretical sense. More research in the area of collaborative professional knowledge in relation to health care practice is needed (Baxter & Brumfitt, 2008). More specifically, research regarding knowledge sharing between the nursing assistants and the other professionals in the team is important.

In this study, an ethnographic research approach has been used, which offers important value, and gives the researcher the possibility to get close and observe what people actually do and how they relate to each other in practice (Hammersley & Atkinson, 2007; Reeves, Kuper, & Hodges, 2008; Savage, 2000). Schatzki (2012) and Hopwood, Day, and Edwards (2016) have argued that ethnography is valuable as a research method for acquiring knowledge about how practices and arrangements hang together and about the contexts in which activities and knowledge sharing can take place. Bunniss and Kelly (2010) have argued for the application of ethnography as an approach suitable to research health care practices.

Our focus in this study is on how knowledge from nursing assistants´ practices informs other professional practices, and is also informed by knowledge from other professions. We also examine how knowledge sharing can take place in and through interprofessional practice, using a sociomaterial perspective on practice. This perspective is relevant to the present study because it emphasizes activities and relationships between professionals in their environments and focuses on practice as it unfolds.

Theoretical approach

The general assumptions and features of sociomaterial approaches in relation to professional practices bring together all the factors that are directly involved in learning activities. The factors include the networks of the people involved, other living organisms, artefacts and things through which teaching and learning are translated and enacted (Green, 2009; Green & Hopwood, 2015; Hager et al., 2012; Schatzki, 2002). Sociomaterial approaches have taken on more prominence in the workplace and professional learning literature as a result of the work of Fenwick, Nerland, and Jensen (2012). From a sociomaterial perspective, a practice is not only what single persons do: rather practices are organized connections between individuals and between individuals and physical spaces and things (Kemmis, 2009). How the practices are arranged, both socially and materially, then form individuals´ actions. A practice is always embodied and situated and professional practices are constituted of cultures, discourses and words ("sayings"), referred to here as the cultural-discursive dimension. This dimension makes the practice, in this example the health care practice, understandable and comprehensible. Practice also has a material-economic dimension which enables and constrains people to act and interact in physical and material space ("doings"). Finally, practice includes a social-political dimension which can be described as the relationships between people and the belonging to different groups ("relatings") (Kemmis, 2009). What makes a complex practice like health care distinctive is how the content of the cultural-discursive, material-economic and social-political dimensions mentioned above are bundled together in certain ways. That specific arrangement creates what Kemmis (2009) and Kemmis, Edwards-Groves, Wilkinson, and Hardy (2012) have described as a practice architecture that constructs, enables and constrains work and knowledge-sharing. Through the formation of each unique professional practice, the practice architecture prefigures the actions performed within each practice. At the same time, each practice architecture can be changed and developed by the practitioners involved. A practice requires people to engage in multiple

activities spread over time and space, and the social and material dimensions cannot be separated. The material dimension refers to tools, technologies, bodies and objects. Materiality shapes what it makes sense to do and makes certain actions seem more intelligible than others. Theories of practice and learning are neither prescriptive, nor do they inform about how empirical work should be performed (Moring & Lloyd, 2013). The theoretical perspective instead provides a lens from which we can observe the world.

Sociomaterial approaches are also associated with questions regarding knowledge (Gherardi, 2009). Professionals must not only apply knowledge, they also have to participate in producing and sharing new knowledge (Rooney, et al., 2012). Our use of the term "knowledge sharing" reflects aspects of a general idea of how what one person or group of people knows becomes available to others. However, consistent with a sociomaterial approach, we do not conceive this to be a simple process of a cognitive package moving from one person to another. Rather, we see knowledge and its sharing as reflecting relationships between professionals, patients, and the objects (i.e. physical things) of their practices. Knowledge sharing is thus understood as something performed collectively, with mutual inputs into the process as bi-directional flows of information, meaning and understanding. What is known, and its significance in the situation, may change during the process.

Aim

Interprofessional collaboration provides possibilities to share the knowledge while working with others who bring different forms of professional knowledge, traditions and roles to the practice. We want to further deepen and extend the view of interprofessional collaboration and knowledge sharing in practice, and therefore the aim of this paper was to explore how the

nursing assistant´s knowledge can be shared in a team on a spinal cord injury rehabilitation ward.

Setting and method

The research project that informs this paper was, as mentioned above, an ethnographic study, based on three observation periods, each lasting about two months, during 2012, at a spinal cord injury rehabilitation ward at a university hospital in Sweden. The site was chosen based on the first author´s prior knowledge of the existence of interprofessional collaboration there. The ward was arranged for 16 inpatients and had a nurse station located in the middle of the ward. There were also two separate offices for different meetings located at the ward. Rooms for occupational therapy, physiotherapy and music therapy, and a dining room for patients were located on the same floor.

The project's ethnographic design suited the aim of exploring in-depth how knowledge can emerge and be shared in interprofessional daily work in health care practice. In line with anthropological traditions, ethnography has a focus on understanding social processes – the actions and cultures that occur in different contexts (Hammersley & Atkinson, 2007), and for this specific study, the knowledge work for health care professionals. By studying the everyday context, evidence of various kinds could be captured, with a specific focus in this paper on nursing assistants´ possibilities to share knowledge with the other professionals.

Ethnography has been applied as a research approach to health care practice in numerous ways as a way to identify beliefs and practices, and allowing these to be viewed in the context in which they occur (Bunniss & Kelly, 2010). The design of this study evolved through the study process, responding to events and circumstances as they came up, which is in line with O´Reilly´s, (2009) and Srivastava and Hopwood´s, (2009) description of ethnography as an iterative-inductive research methodology.

The first author followed two different patients at the ward to facilitate in-depth investigation of interprofessional collaboration, while the professionals worked with the patients. Each team around the patients consisted of 1-2 physicians, 4-5 nurses, 4-5 nursing assistants, one occupational therapist, one physiotherapist and one rehabilitation assistant (10-12 people in total). The team was not then specified in advance but reflected the actual practice of working. This enabled observations of many informal interactions which developed over time. Such observations are important to take into account in an ethnographic study (Hammersley & Atkinson, 2007; Polit & Beck, 2012).

Prior to beginning data collection, an agreement was made with the head of the clinic to secure repeated access to the ward during the year of research. Several information sessions were then used to introduce the study to the different professionals at the ward, after which they gave written informed consent to participate in the study. Further verbal consent was requested before the observation sessions started. All team members agreed to participate. The two patients involved were initially asked to participate by one of the head nurses. They were also given an information sheet describing the purpose of the study and were asked for their oral and written consent. This study received approval from the Regional Research and Ethics Committee in Linköping (Dnr 2011/454-31).

Data collected for this paper were obtained from observations of planned activities as well as from shadowing different health care professionals when working in patient rooms or in shared work spaces. Participant observation is often portrayed as the primary mode of data collection, and this entails prolonged fieldwork. Conversations with participants were supplemented to clarify and complement the observations and were always documented in field notes. The conversations were often spontaneous and informal, and happened in the

course of other activities, adopting a flexible approach, allowing a flow in the discussion depending on the specific situation (Hammersley & Atkinson, 2007).

To obtain a rich and detailed understanding of the practice in general and for the practice of nursing assistants in particular, observations took place at different times of day. The observations covered a range of activities reflecting work shifts and staff rotation schedules. However, night shifts were excluded. The conducted fieldwork involved direct and sustained contact with the different team members in their everyday practice, observing what happened and listening to what was said. All observation data were gathered by the ‘‘marginal participant’’ technique – an approach in which the researcher plays only a minimal role in the social action they are observing (Hammersley & Atkinson, 2007). The observer, (the first author) had experience as a health care professional but also as a teacher specializing in interprofessional education and learning. The observer was always dressed in white garments like the other professionals during the observation sessions.

The study had a longitudinal approach to the collection of data, following the team around two different patients to generate a detailed and in-depth description of professional practice at the ward. This approach also helped the clinical staff and patients to become accustomed to the observer´s presence over time. In the earlier stage of the data collection phase, observations were more general, where the observer made every attempt to figure out what happened in daily work, offering a broad orientation of professional activities. In the next phase, during the second and third observation periods, the observations became more focused on more specific activities and interactions. Field notes and informal conversations were jotted in notebooks and subsequently transcribed into electronic documents directly after the observation sessions (in total 85 pages). Observer reflection notes were also written

at this time. The collection of data and the analysis had an iterative approach, using which the researchers were urged to ask themselves what the data was telling them and what they wanted to know. (Srivastava & Hopwood, 2009). The analysis included detailed and repeated reading of all data visit by visit, identifying different professional activities such as rounds and caring activities, and different spaces such as the patients´ ward room and the nurse station. This part of the analysis focused on the planned activities answering the research question for this paper. The planned activities included interprofessional rounds, team meetings including the patients and relatives, and medical record review sessions.

In the second layer of analysis of these planned activities, we initially focused on descriptive categorizing as to what level of degree of interaction the knowledge from the nursing assistants had the opportunity to be included in the work of the others in the team. In the further interpretation and theorization of these categories, we elucidated how the practice architectures shaped the practices but also how the practice architectures were shaped by the practices for the nursing assistants´ knowledge sharing.

Continuous review and discussion of the emerging empirical data with the research team were carried out to reach consensus on interpretations, to establish trustworthiness, and to ensure that judgments were not clouded by familiarity discrepancies during the analysis. The emerging ideas of the first author were discussed by the other researchers, which is recommended as a way of strengthening the transparency of the analysis (Polit & Beck, 2012).

Findings

This section will illustrate the interpretations of practices where the nursing assistants in one way or another shared their knowledge with the other team members. Three descriptive categories emerged from the empirical data when following the two patients involved in the study. These categories showed, from a sociomaterial perspective how nursing assistants´ knowledge was shared through varying degrees of participation in the team. The categories were: *nursing assistants at a distance, nursing assistants as connection to the patient, and nursing assistants as knowledge partners* (Table 1). All knowledge practices were influenced by cultural-discursive, material-economic and social-political arrangements in various ways.

Insert Table 1 here----------

Nursing assistants at a distance

The interprofessional round meeting is the first described practice where all professionals participated except the nursing assistants. The round meeting in the morning took place in one of the offices at the ward. The material arrangement of the room with a table in the middle, surrounded by the staff, prefigured the round as a collaborative practice, enabling the team to share their knowledge and experiences. The purpose of the rounds was to discuss the medical treatment and rehabilitation strategies needed for each patient. The physician had the responsibility for monitoring and reading through the digital medical record, which was displayed on a big screen on the wall as a tool for knowledge sharing. The visual projection of the medical record provides a possibility for collective reading of information of the current patient, and facilitates discussion of different issues regarding the patients. Representatives from different professions were almost always present at the meeting.

However, the round meeting coincided with the daily morning routines mainly carried out by the nursing assistants, thereby making it impossible for them to participate in the meetings.

When asking the nursing assistants about this arrangement of the round meeting one nursing assistant mentioned:

"…We would like to participate at the rounds, but it is impossible because of the caring activities in the morning. But maybe they are mostly talking about medicine…" (Conversation notes when shadowing).

However, instead of the nursing assistants being physically present at the round meeting, the nurses became the carriers of the nursing assistant´s knowledge and experiences and brought selected information to the rounds to share with the rest of the team.

> The nurse starts to announce that one nursing assistant has observed at the morning care routine that the legs of the patient were different in size. The nursing assistant had taken the initiative and measured the legs and the nurse reported the numbers to the team members. The physician reflects on the fact that it was very proactive and wise to measure at that time in the morning. "*The nursing assistant took a nice initiative"*. The nurse agreed. (Extract from field notes from a round meeting).

Looking upon the round meeting from a sociomaterial point of view, the physical absence of the nursing assistants depends on the *material-economic* arrangement of the ward, on how the daily work process is designed and organized in a certain way. The daily routines, with the morning duties, clash with the time of the round meeting. The arrangement also relies on the *cultural-discursive* dimension, through the professionals' sayings and ideas about the certain practice, which does not give an opportunity for all team members to communicate and discuss with each other. This is expressed by the nursing assistants themselves as not being involved. The *social- political* formed practice also gives a picture of the nursing assistant as

not included. The intentions as well as the responsibilities of spreading the knowledge from the nursing assistant seem not to be clearly expressed among the team, which results in the nurse being the person who brings the nursing assistants´ knowledge second-hand to the team via sayings.

Nursing assistants as connection to the patient

The second example describes a practice for interprofessional collaboration and knowledge sharing in which the nursing assistant usually participated – the team meeting. The interprofessional team meets every third week with patients and relatives. It is a meeting focused on the rehabilitation process, where they have a follow- up discussion of the progress and plan new goals. One nursing assistant is often the contact person for the patient and relatives and therefore participates at this meeting. The professionals as well as the patient and relatives in the room are sitting on chairs in a circle. The professionals use their own note books for reading previous notes and to take new notes during the conversation. One of the professionals is asked to take memos regarding the new decisions.

> The consultant, who is responsible for the meeting today, welcomes everyone to today's team meeting. The participants are: one of the patients in the study with a partner, a physiotherapist, a nursing assistant, a physician, an occupational therapist and a nurse. On the agenda is the planning of a visit to the patient's home in order to identify necessary adjustments needed to make discharge of the patient possible. The patient actively participates in the discussion, eager to get this home visit done as soon as possible. *'It is so frustrating that all the paperwork takes so long',* the patient said. The occupational therapist confirms to the patient that a home visit soon is important. *'Perhaps we can bring a nursing assistant along, in case you should need to lie down and have a rest, or if you need help with your coughing?* The patient's partner asks how many persons will participate and the occupational therapist answers that 4-5 team

> members will attend the home visit. '*Who is the contact person for the patient?* asks the physiotherapist. *'I am,'* answers the *nursing assistant*. *'Oh, great that you are here today'*, the physiotherapist replies. The consultant changes the subject to the patient's nutrition and energy intake and turns to the nurse. The nurse looks in her notebook first and then reports to the consultant how much the patient eats, and there is a discussion between the two of them and the patient about how and what the patient should eat in order to keep control of the patient´s weight. The nurse asks the patient about breakfast habits, and the consultant suggests a strategy to eat less and more often and to vary the flavours. Now the nursing assistant breaks into the discussion and suggests a particular nutrition mousse that comes in various flavours as an alternative to the patient. However, this comment passes unnoticed by all the others in the team. The nurse instead concludes that it is important for the patient to maintain the current weight and everybody seems to agree on this. (Extract from field notes from a team meeting)

The team meetings differ from the round meetings in that the patient, relatives and the nursing assistant are invited. This kind of *material-economic* and *social-political* arrangement enables the nursing assistant to be included as a member of the team and prefigures the actions of the nursing assistant to be involved in the discussion by sayings and relatings to the other in the team. The nursing assistant seems to be accepted as a member for the home visit when the occupational therapist suggests the nursing assistant participate at the home visit because of the specific knowledge and experiences in caring. They are also aware that the nursing assistant is an important person to the patient as a contact person. However, *the cultural-discursive* arrangement still means the voice of the nursing assistant is not always salient in the team. The other team members seem to be aware of the nursing assistant but only partially, and do not seem to take advantage of the nursing assistant´s expertise and contribution of knowledge.

Nursing assistants as knowledge partners

The third practice in which the nursing assistant fully participates is illustrated by a meeting called the medical record review session where one nurse and 2-3 nursing assistants have a meeting which is a kind of handover between them at the beginning of their working pass. They are sitting in one of the offices at the ward in front of a screen on the wall where the medical record is shown.

> It is afternoon 13:30. The nurse starts and explains the purpose of the meeting, *'we discuss the patients together, which improves the record keeping, and we get better at locating information in the record. The negative side is that we only get to know the patients our team is responsible for'*. The nurse sits at the computer keyboard and projects the individual records of each patient of the red team onto the screen. The discussion starts with a general reflection to catch up on and recapitulate the last few days work in the ward. The nursing assistants bring up different observations they have made regarding food intake and mobility of one the patients. The nurse shows the individual record of that patient on the screen for the team to read, and walks the nursing assistants through the notes to find the specific aspect they are discussing. The nursing assistants take notes in their note books. Several minutes of silence pass as the group reads the information in the record. Everyone seems surprised about the great progress the patient has made. 'Hang on, I missed that about his diet' says one of the nursing assistants. *'Where was it again?* The nurse recapitulates and summarizes what the record had stated regarding the diet. The nursing assistant continues to read the nurse's record notes from the morning shift and discusses what they need to follow up this afternoon. *'Fantastic how everything has just gone the right way for that patient'* one of the nursing assistants comments, and the group seems positive and happy for the patient. They continue to discuss how they can mobilize the patient, in relation to his blood pressure. *'If he can get up out of bed now, his blood pressure might drop, we need to be cautious so he does not fall'* says one of the nursing assistants and the other nods and agrees. The nurse asks about a specific bandage of the patient´s wound, and a

> nursing assistant answers that they do that when they think it is needed. They look for a note regarding that in the record, but cannot find it. (Extract from field notes from a medical record review session)

The third practice, the medical record review session, shows an engagement in the discussion from all professionals while reading from the digital record. Here the nursing assistants are fully included. The *cultural-discursive* arrangement enables the nurse and nursing assistants to communicate with a shared language of caring and medicine and all become part of a shared practice and collective negotiation. The *social-political* arrangement provides resources that make it possible for the nurse and nursing assistants to relate equally to each other in relation to power and work status while discussing certain things about the patients. The visual projection by the digital medical record provides a possibility for a collective reading of information on every patient. The nurse seems to have a more coordinating and indicating role here, while the nursing assistants use the session for clarifying and sharing upcoming questions among them. The *cultural-discursive* as well as the *social-political* arrangement shape the practice as a place for common decisions. Here the arrangement also has a *material-economic* dimension as a re-arrangement of the more traditional handover as a way of enabling nurses and nursing assistants to save time and reach a consensus on what to do with the patient in their daily work during the working shift.

Discussion and concluding remarks

Our study has shown empirical examples of how the nursing assistants are involved on a daily basis in different types of knowledge practices. They ask questions and talk to the patients while working with caring activities and they constantly report to the nurse or other

professionals but in different ways depending on the practice architectures (arrangements). The different kind of practices shown in our study (table 1) that the nursing assistants were involved in, both enabled and constrained what could be said and done.

Studies made by (Kalisch, 2009), have shown that there is a lack of joint meetings and reports between nurses and nurse assistants at the beginning of a shift. Our study highlights the medical record review session as an example of a new creative way of knowledge sharing between the nursing assistants and nurses, where the nursing assistant really brought in first-hand knowledge about a certain situation with the patient. This kind of social-political arrangement, as described in our study, allowed productive discussions, because each of the professionals had different types of knowledge to share with the others. The discussion focused more on the daily challenges in the caring work the nurse and nursing assistants had in common, rather than involving a one-way supply information from the nurse. The medical record became an important material object for sharing the knowledge of the patient as a part of the course of professional practice.

Our study confirms previous research that nursing assistants are important sources of knowledge, but that they often disappear in the system, sometimes because of a lack of clarity in roles and expectations between the nurse and the nursing assistant (Sund-Levander & Tingström, 2013). In the decision-making process, the professionals in the team need knowledge about the patients. The nursing assistant is an informed practitioner, often with first-hand knowledge about the patient, and should be an important resource in the decision-making process. The lack of formal meetings for knowledge sharing can influence the implications for the quality of patient care.

Through the formation of the different professional practices at the ward, the practice architecture prefigured actions performed within each practice and enabled a collective activity through cultural-discursive, material-economic and social-political arrangements, in which the knowledge of nursing assistants contributed to the practices of others, and the knowledge of others informed the practice of nursing assistants. A supportive practice with positive feedback from nurses and physicians seems to be of great importance for helping the nursing assistants to rely on their own competence and to feel secure in their profession.

In the area of interprofessional collaboration, the phrase "learning with, from and about each other" has been used to describe the collaborative process (CAIPE, 2002) in which professionals come together to understand each other's roles to enhance the quality of healthcare. But the phrase does not provide details on *how* different professionals relate to each other. Learning *with* others does not necessarily result in a shared understanding of a certain situation, while learning *from* others results in more of an enhanced and shared knowledge (Hovey & Craig, 2011). Our study has provided a novel perspective on how interprofessional collaboration is not just about transferring information between professionals, but also about how to create new ways of thinking by sharing knowledge in daily work. Knowledge sharing among different professionals depends on how the different arrangements prefigure a certain practice, in our example a spinal cord injury rehabilitation ward. Practices created possibilities for the nursing assistants to become collaborative workers and we argue that the way the practices were arranged really had an influence on the patterns of interaction between the health professionals. Nursing assistants´ knowledge and expertise can offer valuable insights into direct care that may go unnoticed by other health professionals. The different professionals must be seen as active problem-solvers and contributors to knowledge. Studies of several authors, such as Hager, Lee and Reich (2012)

and Fenwick and Nerland, (2014) have shown that learning is an integral part of professional practice, and that professional practice cannot be conceived of without learning. Meetings, where all the professionals have the possibility to participate in and openly share their professional ideas and standpoints, could be successful activities where knowledge can be shared and learning can happen both with and from each other.

By using a sociomaterial practice-based approach we have learned more about the complex nature of knowledge sharing in an interprofessional practice. The selection of the site as a single case was based on the author´s prior knowledge of the nature of interprofessional collaboration at this site. That made it possible to spend considerable time at this site to collect data, which can be seen as a strength. Representativeness may be in doubt when choosing one site. However, Savage (2000) has stated that ethnography is not used for developing generalized conclusions but rather for studying a specific group of people regarding a specific topic. Ethnographic findings come from certain individuals and situations and from a particular place and time, and often involve a large number of situations, thereby providing a substantial basis for generalization (Hammersley & Atkinson, 2007) as in the present study. Ethnography has also been seen as a proper method when researching interprofessional collaboration in health care practices to deepen the knowledge of professionals' views of their collaborative work. In this study the ethnographic approach helped us to understand the complex ways in which knowledge can emerge and be shared in interprofessional practice by different professionals. While first-hand perspectives and accounts of practice are important, the observational approach has a different value, particularly because of its ability to trace what people do and how they relate to each other in practice.

The theoretical arguments about how knowledge sharing can happen in a health care practice have a wider relevance to interprofessional collaboration in health care in general. In this specific study, the focus has been on the nursing assistants and their important contribution to the overall knowledge sharing about patients in the team. By studying what health care professionals actually do and say in practice we can learn more about practices of interprofessional collaboration and the shared knowledge associated with those practices.

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