Types of nursing knowledge used to guide care of hospitalized patients

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Abstract

Title. Types of nursing knowledge used to guide care of hospitalized patients.

Aim. This paper is a report of a study to identify the types of nursing knowledge used to guide care of hospitalized patients.

Background. The history of nursing knowledge is discerned in three distinct moments. The first historical moment conceives nursing knowledge as the acquisition of a set of descriptive rules, the second as the development of dualist explanatory theories and the third as the production of critical and/or integrative understandings. It remains unclear how these different types of knowledge are implemented in practice and how they affect the care of hospitalized patients.

Method. A secondary qualitative analysis was conducted in 2007 on original data collected in 2002. The data were read with focus on the knowledge used by participants to confront practice situations. They were interpreted, classified and indexed to identify types of knowledge nurses use to care for hospitalized patients.

Findings. Five discrete types of nursing knowledge that nurses use in practice emerged: personal practice knowledge, theoretical knowledge, procedural knowledge, ward cultural knowledge and reflexive knowledge.

Conclusion. All three moments in the history of nursing knowledge were found to be concurrently present in nursing practice. Ward cultural knowledge and procedural knowledge reflect the rule-based descriptive knowledge of the first moment, theoretical knowledge and personal practice knowledge reflect the explanatory dualist knowledge of the second moment and reflexive knowledge reflects the critical and integrative knowledge of the third moment.

Keywords: culture knowledge, nursing knowledge, personal knowledge, practice knowledge, reflexive knowledge, secondary analysis, theoretical knowledge

Introduction

Whilst knowledge at different times and for different groups has signified different things, nonetheless, it has often been related to enlightenment, truth, rationality, emancipation, power, authority, professionalism and science (Critchley 2001, Okasha 2002, Basford 2003). The relationships of knowledge with these movements have troubled nurses and caused them to question both the role and the essence of nursing (Zanotti 1997). The debate on the essence, role and relationships of nursing knowledge retains significance as it defines the professional status of the discipline, regulates the intellectual and/or technical nursing activities and determines the degree of emphasis given to research, theory, practice development and teaching (Thompson & Watson 2006, Rolfe 2007, Scott 2007).
Hence, identifying the types of knowledge nurses use can help to explicate the role, status and future development of the profession. Furthermore, the asymmetry between the vast amounts of theoretical writings and the very limited research on nursing knowledge has intensified the need to explain comprehensively what the nursing profession actually professes (Basford 2003, Thompson & Watson 2006).

**Background**

Review of the structure and rules inherent in various types of nursing knowledge can be viewed as moments within the context of Foucault’s (1972) method of archaeology. Three distinct moments have been identified, summarizing the common characteristics of nursing knowledge at different periods in the history of nursing.

The first moment in the development of nursing knowledge can be traced to the 19th century, was dominant until the mid-20th century, and in various forms influences current practice. In this moment, nursing knowledge was conceived as a set of descriptive rules that nurses were trained to follow to carry out nursing activities (Reed 1995, Bradshaw 2000). To carry out these rule-based activities nurses were required to have the ‘right’ moral qualities of character such as kindness, trustworthiness, loyalty and genuine compassion (Lorentzon 1997, Bradshaw 2000, Sellman 2007). In other words, nursing knowledge was a set of accumulative descriptive rules about certain nursing phenomena that gave moral guidance in the provision of patient care, with the intent of doing good (Reed 1995, Paley 2001, Mantzoukas 2002a). This type of nursing knowledge had no explanatory power and was regulated and legitimized by an authoritative ideal, primarily in the form of doctors and nurse managers (Reed 1995, Ceci 2004, Schweikardt 2006).

The second moment in the development of nursing knowledge started in the 1950s with the development of the first theories by nurses and continues up to the current time. Nursing knowledge in this moment ceases to be treated as a set of descriptive and ethical rules passed down by some authority, and slowly shifts focus to the ‘how’ and ‘why’ nurses conduct certain caring activities (George 2001). This questioning of nursing activities rationalizes practice and synthesizes hierarchies based on theories from other disciplines, developing in this way a unique body of nursing knowledge (Fawcett 1993, Meleis 1997, Slevin 2003). The most significant contribution of this moment is that nurses acquire a central position in explaining nursing phenomena and creating nursing knowledge (McKenna 1997, Slevin 2003).

In this moment, nursing theorists such as Peplau, Henderson, Orem, Rogers and Roy are included. Also, the influential work of Carper (1978) and Benner (1984) are incorporated, as they attempted to explain nursing knowledge in a linear manner and in the form of objective and subjective ways of knowing. Both argue that there are unique and multiple types of nursing knowledge, but disagree about what these types of knowledge share. Carper is inclined to a position of integration of the various types of knowledge so as to produce the ‘whole’ of nursing knowledge, whereas Benner is inclined to a position of disintegration as the various types of knowledge, where each type represents different stages in the novice to expert continuum.

Both Carper and Benner have extensively been quoted and widely criticized. The most eminent critique of Carper’s work is that her ideas lack sufficient elaboration. She has been accused on one hand of confusing meanings by using them interchangeably, e.g. knowledge and belief, and on the other hand criticized for not doing enough to integrate the various types of knowledge, hence leaving her work unfinished and of limited value (Chinn & Kramer 1995, Edwards 2001). Critiques of Benner’s work relate to intuitive knowing being a nebulous concept that makes nursing knowledge an unrevisable and mystical phenomenon and to a degree promulgates a dualist split in the production of nursing knowledge (English 1993, Edwards 2001, Paley 2002).

The dualist split in the development of nursing knowledge is another important issue that appears in the literature. Broadly, this split is between generalizable, predictive and objective ways of knowing vs. multiple, individualized, sophisticated and subjective ways of knowing (McKenna 1997, Edwards 2001, Titchen & Ersser 2001). The nursing literature is replete with arguments debating the need either for a single external reality that can be grasped it in its totality via the use of methodological rigor or for multiple realities that are located and locatable in the here-and-now of our individual, unique and situated experiences (Ceci 2003).

In the 1990s and 2000s, this dualist split in relation to nursing knowledge had another twist in a focus on reflective practice (RP) and evidence-based practice (EBP) as the means for developing various types of nursing knowledge (Rolfe et al. 2001, Jasper 2003, Mantzoukas 2008). Theorists no longer produce knowledge in the form of integrative theories, but facilitate practitioners through RP and EBP to produce practice-relevant knowledge. RP primarily represents subjective, contextual and multiple types of knowledge, whereas EBP primarily represents objective, acontextual and ‘true’ types of knowledge (Gregson et al. 2002, Johns 2005, Paley 2006).
However, in the current nursing literature, in a covert manner, a rearrangement of the constitutive components of these knowledge production mechanisms has been initiated, based again on the above dualism. On one hand, proponents of generalizable and a contextual knowledge have diluted RP to the point that it has lost its direction and has been accommodated as to fit traditional modes of knowledge production (Rolfe 2002, Mantzoukas 2007a). On the other hand, proponents of subjective and contextual knowledge have tweaked the fundamentals of EBP to the point that RCT are projected as contra-productive for nursing knowledge and argue for reconceptualization of EBP (Evans 2003, Morse 2006, Pearson et al. 2007).

The third moment of nursing knowledge starts in the mid-1990s and continues up to the present. This moment is characterized by the attempt to debunk the dualist perspective, either by viewing nursing knowledge from a unifying perspective or by critiquing, redescribing and repositioning thinking to make the dualist position unattainable and meaningless. The first attempt to debunk the dualist position is by use of ‘consilience’ as a way of unifying the various types of knowing and, through the process of reflection, to produce the ‘whole’ of nursing knowledge (Jasper 1994, Johns 1995, 1998, Bennett Jacobs 2001, Chinn & Kramer 2003, Cowling 2007). The second attempt to debunk the dualist position involves radically altering our posture of inquiry and, rather than asking the initial question of what kind of knowledge is appropriate knowledge for nursing, asks how it is we position ourselves as knowers in relation to the different kinds of knowledge available to us (Trainor 1997, Ceci 2000).

In the third moment of nursing knowledge, it is proposed that individual nurses interrogate established mechanisms of knowledge production and distil the illusion of indubitability in knowledge (Ceci 2003, Freshwater & Rolfe 2004). Once an individual nurse is released from the straitjacket of certainty, then the contradictions, gaps, inconsistencies, raptures and absences become apparent in nursing knowledge (Rolfe & Gardner 2006). This leads to increased awareness of the role that power, language, ideology and authority have in the process of knowledge production (Miller 1997, Rolfe 2000, Mantzoukas 2007b).

Nursing knowledge in the third moment is typified by a critical and inquiring attitude on the part of each individual practitioner; this may provoke solutions, but does not produce a final resolution (Miller 1997). The product of knowledge becomes a by-product and the process becomes the main issue (Smythe 2004). The process of knowing is validated by the coherency and consistency it has with the network of all other sets of beliefs of the individual and is characterized by the potential to alter, shift and recreate itself in different spaces and times (Ceci 2003, Avis & Freshwater 2006, Mantzoukas 2007b). Critical reflexivity becomes the main tool for achieving this type of knowledge (Freshwater & Rolfe 2001, Rolfe et al. 2001, Mantzoukas & Watkinson 2008).

Despite the fact that these three moments of nursing knowledge are related to different periods of time, nevertheless it remains unclear how the transition from one moment to another occurs and, indeed, if such a transition actually exists. Furthermore, it remains unclear how the above structural description of knowledge actually influences the knowledge used by nurses to care for patients in hospitals and the way in which theoretical writings are integrated into the practice context.

The study

Aim

The aim of this study was to identify the types of nursing knowledge used to guide care of hospitalized patients.

Design

The study reported here was a secondary analysis of an original ethnographic research. Secondary analysis involves the retrospective analysis of data gathered for a previous study by the original researcher or another researcher and addresses new questions or views the original question from an alternative perspective, hence examining issues, which were not central to the original study (Szabo & Strang 1997, Heaton 1998). The advantage of secondary analysis is that it expands on a well-known topic, allowing maximum use of data.

The current secondary analysis was conducted in early 2007 and included data gathered by the same researcher in 2002 for an ethnographic study of nurses’ practice reality in four different medical wards at two different hospitals (Mantzoukas 2002b).

Participants

Data were gathered for the original study from observations and interviews with 18 Registered Nurses employed at four different medical wards in two different urban hospitals in England.

Data collection

The data for the original study were collected by observing nurses carrying out their work, followed by a 45-minute semistructured tape-recorded interview. Participants also
completed a reflective analysis on a personal practice incident. In the secondary analysis all the data, which had been archived in written form, were used. The benefit of the primary researcher being the same person for both studies was that it allowed for appropriate contextualization and interpretation of the data in the secondary analysis (Heaton 1998, Parry & Mauthner 2005).

Ethical considerations
The original study was approved by the relevant research ethics committees and written informed consent was acquired from all relevant gatekeepers. Participants were given oral and written information indicating the aims of the project and that the data would be used only for research purposes, and that participation was voluntary. Finally, confidentiality was guaranteed and all participants signed consent forms.

Data analysis
In secondary analysis of qualitative studies the same techniques and procedures of primary research are used, which include flexible and nonlinear coding of data and the notion of theoretical saturation (Szabo & Strang 1985). The data were read with focus on the knowledge used by participants to confront practice situations. The data were interpreted, classified and indexed to identify types of knowledge nurses use to care for hospitalized patients.

Rigor
Rigor in the secondary analysis was assured by use of an audit trail and presentation of original quotes, along with the researchers’ interpretations (Sandelowski 1993, Rolfe 2006). Furthermore, the fittingness of the purpose of the analysis and the nature of the original data (Thorne 1994) are demonstrated as the topic for secondary analysis is compatible with the original data, and the ethnographic methodology of the original study is congruent with the method of secondary analysis implemented, thus enabling contextualization of findings (Szabo & Strang 1985, Heaton 1998, Parry & Mauthner 2005).

Findings
From the secondary analysis, five discrete types of knowledge emerged that are used by nurses in medical wards: personal practice, theoretical, procedural, ward cultural and reflexive. The quotes presented below are taken from the original transcribed interviews and field notes.

Personal practice knowledge
Personal practice knowledge is grasped in a conscious moment of encountering and interacting with a specific patient. In the following, excerpt the nurse attended to the patient’s needs on admission and developed a personal relationship, which enabled knowing the patient:

The nurse showed the patient her bed. She sat by the bedside and introduced herself to the patient. The nurse gave the feeling that she was a person of trust and one you might have known before. Consequently, she asked if the patient knew the reason for which she was admitted and when the patient explained that she felt a bit confused and overwhelmed with her admission, both the body language and the verbal language of the nurse gave the sensation that the nurse understood what the patient was feeling. (Field notes)

The nurse in this example created a trustful, purposeful and unmediated personal encounter that allowed space for subjective revelations and the expression of personal anxieties or problems. The acquisition of this personal knowledge would have been impossible without such an individualistic and personal approach. The following excerpt demonstrates the valuable and useful information that such knowledge yields:

The patient became familiarized with the ward and started talking about her experience in the hospital, about her home and her feelings about her move from the previous ward. She said that it felt too gloomy in the previous ward and that the ceiling was too low and the ward was too dark. (Field notes)

Personal practice knowledge is person-specific, acquired in a moment of interaction with each patient and developed via the dialectical relationship that is created between each patient and nurse.

Theoretical knowledge
Theoretical knowledge differs from personal knowledge in two fundamental ways: first in the manner it is acquired and second in the way in which it is conceptualized. Theoretical knowledge was acquired in the formal settings of nursing schools or learned from books, scientific journals and lectures. Nurses memorized, absorbed and embodied this type of knowledge and conceptualized it as indispensable knowledge that all nurses should possess. This type of knowledge was understood as normative, explanatory and factual, providing quantifiable and measurable information about practice:

I (interviewed nurse) think going right back to sitting in the School of Nursing and we having our lectures such as anatomy or sociology or
whatever lecture – it is there where you are going to get your basic information, or from your reading. (Interview)

On observing one nurse (observed participant) taking a blood pressure and urine readings and replying that they were normal, I asked what constituted normal blood pressure and urine output. She replied that knowledge of normal readings comes from university stating that we all know what normal blood pressure is from school. (Field notes – note)

Theoretical knowledge offers the potential of knowing, for example, what constitutes a normal reading and the potential to know that, if a patient’s readings do not range within the normal spectrum, then such abnormality needs to be dealt with appropriately. Furthermore, as the following quotation describes, theoretical knowledge provides the guiding, informing and dictating tools to prevent abnormalities from happening:

I have a good knowledge base from university, just removing a venflon (intravenous catheter), that is an easy thing, I don’t need to ask anybody to do that. I’ll just take it out. A lot of people will leave them in and they will be in for a week and that is odd, because after three days I have been taught that they are prone to infections. So I just whip them out all the time. (Interview)

Nurses understood theoretical knowledge as the basis for their conceptual elaborations and decision-making procedures, and this consequently determined their daily actions. This type of knowledge was considered a necessary commodity for professional practice.

Procedural knowledge

Procedural knowledge refers to the recognition of patterns of practice that nurses have seen in the past and are therefore able to reiterate. The nurses had difficulty explaining what they did, as this knowledge is rooted in ‘doing’ and proceeds in an unconscious fashion. This type of knowledge is limited to specific incidences and specific contexts:

There are some jobs that you will have to deal that are repetitive. Taking blood samples from Hickman lines or peak lines, dressings, drawing up IV and giving IV, antibiotics regimes, these sort of things. You observe people who have been working for many years, by looking at the way they practise you can go, ‘That is great’, that is the way to do something. (Interview data)

The nursing actions in the above excerpt are based on previously observed actions of more experienced nurses in similar situations. This type of knowledge has its foundations in previous examples and is acquired during presence in the specific ward. These previous examples are internalized, automated and predominantly unconscious. This knowledge is rapidly and effortlessly used, and is highly operational in everyday complex situations according to the following quote:

I do not know, it is just a feeling, it is just a gut feeling that you can sense, because a lot of it you do draw on past experiences, I think knowledge you gained in the past. I do not know, it is strange isn’t it, it is just a feeling you can get, I do not know if it makes any sense. (Interview)

Procedural knowledge takes the form of ready-made answers for daily and routine situations that are developed by nurses when confronted with similar incidents. In this way, repetition of problems leads to repetition of actions derived from previously implemented solutions. This results in a state of automatic and unconscious doing, where nurses are unable to explain precisely why they are practising as they are.

Ward cultural knowledge

Ward cultural knowledge is familiarization with various written and unwritten norms and rules of the ward. The kernel of ward cultural knowledge is that of ‘getting the work performed’. This knowledge was encapsulated in the notion of professionals becoming ‘jugglers’ in their attempts to complete as many tasks as possible:

Sometimes you are here and you’re just running around doing a little over here, a little over there. It is like spinning plates on sticks – you give each other a little spin and off again. For instance, you clean the dentures and then off to change the bed sheets and then to spend some time with any one patient. (Interview)

The ward culture of the observed wards primarily favoured ‘doers’. If the nurses did not have something to do, they were introduced to the ethos of improvising something to do. The following extract illustrates a situation where the nurses shied away from analysing practice to hide behind the smokescreen of busyness, real or manufactured:

We need different beliefs as a team to develop a practice theory. We have in the ward knowledgeable practitioners, so that is an excuse – that is there. The financial resources are not necessarily there. Sometimes they are there but we do not seek them, the energy required to seek them is quite large, which again is an excuse. Basically, I think the culture of being busy; being busy is what prevents us from seeking resources to develop practice and theory. At times we as nurses can be at risk of being too busy of being busy, to see the big picture. (Interview)

This type of knowledge is ward-specific, functions primarily at an unconscious level and is significantly focused on the doing of activities, rather than cognitively elaborating on
these activities. The primary function of ward cultural knowledge is to ensure that predefined nursing activities are appropriately carried out, with no indication of practice evaluation and development resulting from this.

**Reflexive knowledge**

Reflexive knowledge is partly an amalgamation of the previous four types of knowledge and partly a dynamic force that guides and alters practitioners’ actions in practice. It is a discrete type of knowledge as it is accumulated from similar previous examples with which practitioners themselves have been confronted at a ward level, but it is a conscious type of knowledge that continuously shapes and reshapes practice decisions. Reflexive knowledge allows nurses to identify the types of knowledge required for specific situations quickly and accurately:

Mr X with LVF (left ventricular failure), and has been here for a few days, has been on frusemide and was certainly improved. He has been looked after by a less-experienced nurse. Suddenly, I noticed him becoming extremely panicking, very sweaty. He has been off his frusemide for 2 or 3 days. I noticed him getting extremely short of breath and I got the less-experienced nurse to call the doctor. She was thinking along the lines shortness of breath, because he was also a patient with a respiratory history, but this was too acute to be that and she was thinking of giving him a nebulizer and I said, No, get the doctor, he needs frusemide, he is flipping into failure again. (Field notes)

The junior nurse involved in this incident has the same personal practice knowledge as the senior nurse, but the two understood and confronted the clinical situation in very different ways as the junior lacked the reflexive knowledge of the senior nurse. This type of knowledge is acquired by confronting similar incidents in the past. If the junior nurse were to reflect on the incident, this would add on her existing knowledge and in future similar incident this new, reflexive knowledge would influence her actions. Hence, reflexive knowledge enables conscious, speedy and efficient decisions on the types of knowledge needed and in the sequence they are required:

Well, things that you have performed, you know, you continue to learn after you qualified...maybe a lot of people, like the junior nurses over here have been in school more recently than I have. But over the years you can say that you looked after a certain number of medical patients, your regular COPD (chronic obstructive pulmonary disease), your MI (myocardial infarction), your heart failures and you learn what is to be performed for them and what isn’t to be performed for them and what regimes they will be on, and with your experience anticipate potential problems and spot potential problems. Whereas maybe the lesser experienced nurse will not spot (such problems), until they are catastrophic. (Interview)

Reflexive knowledge is context-specific and requires a certain amount of experience to be developed. This knowledge enables nurses quickly and efficiently to conduct a series of activities. However, when these activities do not meet the needs of a specific patient or are not leading to the expected outcomes, the nurse consciously reflects on the actions taken and derives new conclusions regarding nursing actions. After the modified intervention proves successful, this knowledge then returns to the realm of procedural knowledge and the conclusions of reflexive knowledge are unconsciously implemented in future cases.

**Discussion**

**Study limitations**

The limitations of the current study are the limitations of all interpretive qualitative projects relating to issues of transferability. Although we identified five types of knowledge that nurses’ use to care for hospitalized patients, the findings are limited to the specific context and time period in which the study was conducted. If the spatial-temporal conditions alter, it cannot be predicted that the same types of knowledge will be present. Eventually, the transferability of the findings is a matter for readers to consider their own practice in the light of our findings.

**Discussion of findings**

The features of both personal practice knowledge and theoretical knowledge are commonly found in the literature and equate with Carper’s (1978) concepts of personal knowledge and empirical knowledge. However, we found three other concepts are evident in nurses’ everyday practice, and these appear to be absent from Carper’s work. These concepts – procedural knowledge, ward cultural knowledge and reflexive knowledge – attest to the ways that nurses integrate their sources of knowing within the reality of the practice situation. The nurses in this study were consciously aware of using these different types of knowledge in complex situations, and were able to describe how they guided clinical decision-making and the juggling of patient-care options within constraints imposed by the ward culture. These concepts articulate with the development of proficiency and expertise described by Benner (1984) in the domains of nursing, where cultural elements were recognized as contributing to the way in which expert nurses practised.
This combination of sources of knowledge may demonstrate what Carper (1978) refers to as ‘aesthetics’, or the art of nursing. However, our findings suggest that sources of knowledge informing the reality of practice are not only external to the environment of that practice, but are also intricately articulated with the specific context and culture of that environment. The ward culture is an important and significant source of knowledge which in many ways helps to explain the conundrum of why the variety of nursing theories do not capture the totality of nursing practice as it is lived in a ward environment.

Procedural knowledge is similar to the notion of routine thinking and acting as debated by McCarthy (2003) and Funkesson et al. (2007), although in this context it is linked to the ward cultural knowledge developed by nurses through socialization into the particular ward where they worked. This is important, in that it demonstrates how nurses can modify theoretical and procedural knowledge according to context and environment. The nurses, in our study, provide evidence of adapting the ways in which they work and the theoretical underpinnings that inform this to ‘fit’ in with the prevailing cultural norms of that particular ward. Whilst this has some of the features of Carper’s ethical/moral knowing, in that nurses were guided by notions of right and wrong, it reflects a more pragmatic position adopted by modifying what they do within a framework of acceptable practice. In other words, the nurses drew on theoretical, personal practice and procedural sources of knowledge through reflexivity, but mediated by the ward cultural knowledge, which enabled them to deal with the context of care and the unique environment in which they were working.

Lykkeslet and Gjengedal (2006) refer to ward cultural knowledge as ‘the life of the ward’ that is specific to each ward and acquired by practising there. As Wells et al. (2001) suggest, a good working culture amongst practitioners contributes to knowledge enhancement, as opposed to formalized knowledge dissemination. This questions the likely success of attempts to integrate evidence-based practice through traditional teaching strategies, whereas worked-based strategies such as action learning sets and participatory methods which acknowledge cultural and contextual influences are likely to be more successful.

Procedural knowledge appears to develop from theoretical knowledge as the nurse moves from ‘knowing that’ to ‘knowing how’ (Ryle 2002). Nurses can explain why they do the things they do according to theoretical principles, but also how they moderate and apply the theory to articulate how they do them. This procedural knowledge is further moderated by personal practice knowledge in terms of working with a specific patient and how the procedure relates to their individual needs.

Conclusion

Reflexive knowledge is the resulting knowledge base from which nurses appear to work, and it integrates all other sources of knowledge to enable them to respond to future and unique situations on the basis of their previous experience. This concept is not new in theoretical terms. What this study adds to this notion, however, is the extent to which the culture within which nurses’ work adds an important dimension to how they practise nursing.

Author contributions

SM was responsible for the study conception and design. SM performed the data collection. SM and MJ performed the data analysis. SM and MJ were responsible drafting of the manuscript. SM and MJ made critical revisions to the paper for important intellectual content.
References


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