Nursing knowledge: defining new boundaries

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Summary
Nursing knowledge covers those aspects of knowledge that are relevant to nursing. The types of knowledge in nursing are many and varied; the generation of knowledge therefore becomes complex. Nurses need to go beyond traditional ways of understanding nursing to redefine nursing knowledge. This could determine the nature of the profession in the 21st century. Nursing must explore new ways of thinking about and explaining the profession – there will always be new directions to take and new avenues to explore.

Types of nursing knowledge
Aesthetic knowledge This concerns expert practice and the motivation to care. Motivation is the desire to care for someone and to enable him or her to cope with his or her illness or disability, or to recover fully and perhaps enjoy an increased level of well-being and quality of life (Parker 1997). It is also about understanding the human experience, insight into the dimensions of the human condition and the lived experience of illness, suffering, dying, healing, pain and disability (Darbyshire 1994).

Aesthetics acknowledges the importance of the art of nursing. It is expressive and viewed through action. These practices are encountered every day and are ‘small’, yet complex. Giving bed baths and helping patients to the bathroom are often cited as ‘basic’ tasks, and frequently delegated or taken for granted. Their complexity and importance to nursing expertise are often overlooked. Consequently, these ‘small’ practices that separate nursing from other healthcare professionals are not accorded the value they deserve.

Empirical knowledge This type of knowledge includes empirical research, scientific enquiry, reductionism and positivism. It is often viewed as the only ‘true’ or ‘valid’ knowledge as it has been subjected to rigorous empirical testing using mainly quantitative approaches to research. It includes theoretical knowledge from books, journals and conferences and draws on traditional ideas of science, including biology, sociology, psychology and pharmacology.

The use of empirical knowledge means that skill in, and knowledge of, a particular situation must be complemented by well-litigated scientific knowledge that has been subjected to rigorous empirical testing. This implies evidence-based practice and highlights that empirical knowledge needs to inform practice. Empirical knowledge is often broadened to include inductive methodologies such as phenomenology and grounded theory.

Personal knowledge This concerns becoming self-aware. It does not emanate from books, journals, lectures or academic conferences. It refers to the fact that ‘we know more than we can say’ (Polyani 1966), or ‘understanding without rationale’ (Benner and Tanner 1987). It can be as valid as scientific knowledge and nurses can be confident in using it as a justification for their actions. However, personal knowledge, which includes experiential knowledge and intuition, is not used to justify practice as its credibility is of little or no consequence when compared with empirical knowledge.

Experimental/Experiential knowledge includes gaining inner personal meaning from life experiences. Nurses personal experiences might include having a baby, a family member being ill in hospital, or bereavement. These experiences develop experiential learning, which nurses can draw on in clinical situations. Experiential knowledge is also gained from professional practice. Nurses’ clinical experiences during their years of practice can inform future practice in similar situations.

Intuition Intuition or tacit knowledge is widely accepted in nursing (Barraclough 1997) and has been cited as an integral part of clinical nursing practice (Benner and Tanner 1987). It helps to develop creativity and often is not directly communicable in language. Every nurse has intuitive tacit moments in clinical...
practice – when he or she feels intuitively that something is wrong with a patient, but cannot express it in words. The patient's heart rate, blood pressure, respiratory rate, temperature, oxygen saturation and urine output are all normal. Yet when the nurse returns from a coffee break, he or she finds that the patient has had a cardiac arrest. This type of knowledge is a hunch or gut feeling (Effken 2001, King and Appleton 1997).

**Ethical knowledge** Ethical knowledge is often thought to include questions about when to withdraw treatment, when to resuscitate a patient, and whether to allow relatives to be present during resuscitation. It also concerns everyday clinical decisions, such as should you first assist the patient who has requested to go to the toilet, or change and clean the patient who is incontinent in bed. It is about moral knowledge, decision-making and prioritising. It includes what is good, right and responsible, and involves confronting conflicting values. In ethical knowledge there may be no satisfactory answer to the dilemma.

### Box 1. Components of modernism and postmodernism

<table>
<thead>
<tr>
<th>Modernism</th>
<th>Postmodernism</th>
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<tr>
<td>Development of Western civilisation and the rationalising of knowledge</td>
<td>New views of scientific research and its paradigms</td>
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<tr>
<td>Promotion of order and control will achieve enhanced levels of social understanding, moral progression, justice and human happiness</td>
<td>A question of what is legitimate: who decides what knowledge is, and who knows what needs to be decided?</td>
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<tr>
<td>Pursuit of order, faith in progress</td>
<td>Associated with power and the struggle to define and impose truth</td>
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<tr>
<td>Application of methods of new sciences referred to as empirical</td>
<td>Challenges the power of science as superior; the very idea of knowledge generation and how it is generally conceived in Western industrial society</td>
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<tr>
<td>Experimental reasoning with a progression in human thought that contributes to the successful advancement of science</td>
<td>Ability to make knowledge claims without certainties</td>
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<tr>
<td>Associated with the growth of science – empirical research</td>
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**Nursing research** Nursing knowledge is generated through nursing research (Mulhall 1995). The age of modernism proposed that science, technology and rationality could be used to solve all human dilemmas (Box 1). The methods/paradigms used to generate nursing knowledge include:

- **Scientific knowledge**/positivism, reductionism: survey, experimental design (deductive methodologies). Uses rigorous data collection, questionnaires, inferential statistics.
- **Philosophical/naturalistic enquiry**/phenomenology, ethnography, action research, grounded theory and case study (inductive methodologies). Uses interviews and observation as data collection tools. These are generally expressed under the two headings of quantitative and qualitative approaches to research and knowledge generation.

**Quantitative research** Quantitative research is often judged as ‘scientific’. It values scepticism, doubt, objectivity and detachment (Peplau 1988). It is dependent on rigorous data collection, analysis and interpretation. It is often valued as superior and given a high academic status (Reed and Procter 1993). It proposes that people are reducible and measurable objects independent of historical, cultural and social contexts. This method of generating knowledge has been valuable to nursing for enhancing assessment, protocols, measurement of vital signs and the delivery of technology. It means that an accurate account of a patient’s physical condition can be made and documented. It can identify other areas relevant to nursing, for example, positive correlations between increased nurse stress and an increased number of high dependency patients on the ward, and can be used to support arguments for obtaining additional resources and staff.

**Qualitative research** This type of research is often judged as unscientific, value laden and biased (Peplau 1988). However, it tends to embrace nursing’s traditional values of personalised, intimate, holistic human care. It involves knowing and understanding people. It values subjectivity, quality, emotion and holism. Qualitative research was developed as a reaction against positivism (Martin-Manan et al 1997). This approach can be used in nursing to gain knowledge of the patient’s experience of phenomena, for example, what it is like to experience pain or limited mobility. It uses words to explain feelings, experiences,
of illness, pain and suffering. Nursing has advocated the use of qualitative approaches, which might yield richer data in terms of the real, lived experience of patients and their carers. Nevertheless, the rigorous data collection and analysis, which are part of the philosophical basis of science, are retained, thus justifying the inclusion of this type of enquiry under the umbrella of science (Rose 1997).

Critique Good practice relies on effective and reliable access to evidence and if this can best be achieved through the scientific method, then scientific research is essential to good practice (Rolfe 2000). However, the use of only quantitative and qualitative research methods in nursing has been criticised. It has led to the assumption that research and evidence are superior forms of knowledge and that there is always evidence to support practice. The aim, therefore, of research-based practice is to improve nursing through research and yet it consistently and spectacularly fails to do so (Greenwood 1984; 22 years of nursing research has generally failed to influence practice (English 1994). Practice needs to be research based, but less than one third of published research is deemed useful for guiding practice (Rolfe 2000).

Some nursing theorists appear to have embraced the knowledge and language of empirical science to the potential detriment of focused, humanistic patient care (Parker 1997). Nurses continue to view academic credibility as a close adherence to the methods of science and are suspicious of some of the more modernist methodologies (Rolfe 2000). Using just quantitative and qualitative research methods to generate knowledge excludes certain types of knowledge that do not fit into the thinking of science and technology, and as such become undervalued, or worse, ignored.

The overuse of scientific methodologies to generate nursing knowledge has led to the view that nursing itself is a science, rather than intuition and clinical experience (Davidoff et al 1995). The postmodern view has been weakened slightly by lack of political commitment to the movement, by the imposition of a traditional positivist definition of research through the Department of Health (DoH) commissioned Report of the Taskforce on the Strategy for Research in Nursing, Midwifery and Health Visiting (Cahoone 1996, DoH 1993). The taskforce accepted the quantitative paradigm of rigorous and systematic enquiry and rejected anything that did not fall into that category. A similar strategy can be seen in the promotion by the government of the term ‘evidence-based practice’ (Rolfe 2000). This tends to advocate technological rationality and empirical knowledge as sufficient grounds for clinical decision-making, rather than intuition and clinical experience (Davidoff et al 1995). The government is the principal source of financial support for research and development in nursing (DoH 1993).

Defining new boundaries

There has been a dramatic shift in our understanding of what counts as knowledge. Old ideas of knowledge and action are falling apart. In the quest for knowledge, nursing has relied heavily on science, albeit in both paradigms. The development of nursing knowledge hinges on diversity in what determines knowledge in nursing.

Who decides what counts as knowledge? It is proposed to be those with power, such as funding bodies for research. Are they in a position to decide the research questions, how and who will address them, and as such have a huge amount of control over the definition and generation of nursing knowledge? The funding bodies define what counts as good practice, research and education, and continue to ensure that only empirical knowledge is seen as valid (Rolfe 2000). In this approach theory takes precedence over practice, but it fails to identify that knowledge is constantly shifting, and the notion of progress is undermined. Progress towards truth and social wellbeing through the methods of science becomes an illusion, established by those people and institutions with the power to define knowledge. Thus, using science alone to generate nursing knowledge is merely a continual shifting from one valueless system to another (Rolfe 2000). It also fails to identify and value the diverse types of nursing knowledge used in nursing.

Nursing needs to describe its own perspective, a determinant of knowledge from within, its own idea of what constitutes knowledge. The new dimension of nursing knowledge generation demands new tools and methods. These new methods and tools to generate nursing knowledge can be approved through postmodernism and accepting nursing as an art form.

Postmodernism The realisation that modernism, rationality and technology do not provide all the answers has led to uncertainty and a new quest for understanding about truth and reality. Postmodernism rejects the idea of one true story about reality (Box 1). The postmodern view has been weakened slightly by lack of political commitment to the movement, by the imposition of a traditional positivist definition of research through the Department of Health (DoH) commissioned Report of the Taskforce on the Strategy for Research in Nursing, Midwifery and Health Visiting (Cahoone 1996, DoH 1993). The taskforce accepted the quantitative paradigm of rigorous and systematic enquiry and rejected anything that did not fall into that category.

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The advancement of nursing cannot be measured in the same way as physical, pharmacological, medical and psychological sciences (Shaw 1993). The postmodern notion of evidence-based practice is broader. It is a response to find new explanations and meanings. This is heralded by the fact that certain knowledge previously excluded is now being reconsidered.

Nursing as an art form Nursing knowledge is not unique, but the application of that knowledge to practice is (Mehanna 1993). However, the scientific paradigm is powerful and nurses use it as it is proposed to lead to improved professional practice. Yet science alone will not solve all the problems of nursing. It is essential to consider the manner in which
knowledge, judgement and skill are used in the clinical setting (Johnson 1994). The nurse uses scientific knowledge and technological hardware as tools, and mixes the elements of nursing, manual dexterity and interpersonal skills to create nursing (Rose 1997). The art of nursing involves the activities that make up the role of the nurse, including complex technological skills, maintaining hygiene, listening, teaching and so on, arranged to create a ‘whole’ that is pleasing to the patient. This perspective highlights that nursing must have a unique form of knowledge that reflects this. Nursing is a distinct entity that (Rose 1997):

- is different from, and greater than, the sum of science and technology.
- contains within it nurses’ ethical, intuitive and tacit knowledge.
- is more than an understanding of sociology, psychology, biology and pharmacology.
- is more than the application of these to practice. Masson (1987) said: ‘To nurse – really, truly – is art, and our art holds the power we need to unite us, keep us going, moving us forward. It is time, high time, to unleash it.’ Today, many people experience nursing, but as with other forms of art, its artistic value passes them by (Rose 1997). Nursing has over many years neglected the nature of practice and the art in caring.

Nursing art can be compared to a painting: the artist’s tools are paint, brushes and canvas, which are used to create a unique painting. It is then placed in a room on a wall and most people pass it by. It is only when the painting is examined closely that the artistic strokes of the brush and the care that has gone into creating the work of art are noticed. Individual to each patient, therefore, the art is always unique and only witnessed by the nurse delivering it and the patient receiving it. Thus, nursing is art.

Creating new knowledge New ways of looking at generating nursing knowledge are needed. There is a wealth of untapped knowledge embedded in the expert practice of clinicians (Hampton 1994). There are other types of knowledge which, laying aside the assumptions of science, can add to the understanding of nursing and nursing practice. This knowledge cannot be judged by other professionals using scientific criteria. It is nursing knowledge because:

- it informs nursing practice and art.
- it identifies us as nurses.
- it uses its own criteria to validate the knowledge. ‘It is because we say it’.

This new knowledge for nursing can be created through reflective practice and the study of dialogue and narratives.

Reflective practice may be that reflection in on an action represents a possible mechanism to assist the nurse to integrate all forms of nursing knowledge. Additional potential for reflective practice is as a means of developing a unique body of nursing knowledge (Conway 1994). Reflection may help nurses to bridge the theory-practice gap and provide a process for developing knowledge from practice. Thus reflection is a method by which professionals create new understandings of knowledge in practice. Reflective practice provides a focus for disparate thoughts, attitudes and opinions (Rolle 2000). The connections made by combining various ideas through the reflective process result in new learning, a new angle, and further reading to improve and develop knowledge. Reflective practice is undertaken to learn from practice, to improve practice.

Dialogue Any explanation that gives new depth of understanding, insight or application to practice is knowledge, and as such should be given credit for its value to nursing. It is about explanation of a particular system of knowledge, for example, linking an area of biosciences to nursing practice. This method of generating knowledge for practice does not require justification or proof (Rolle 2000), but gives meaning to interventions and care for use in practice.

Another way to gain understanding into the dimensions of the human condition and the lived experience of illness, suffering, dying, healing, pain and disability is through poetry, art, music, film and other media. Poetry can reveal a deeply meaningful perspective of patients’ experiences. Patients who write poems about their feelings during a period of illness can be considered a useful source of knowledge. These poems demonstrate that patients can educate nurses and be a source of knowledge.

Nurses can also write poetry, which will give them the opportunity to explore a new and different way of expressing their own unique nursing perspective of their experiences (Holmes 1998). Writing poetry is a way of releasing the mysteries of nursing practice, exploring and generating aesthetic knowledge. Poetry is an art form and a way of expressing and articulating clinical experiences. It provides openness to the heart and gives meaning to the reality of knowing and being.

Nanatives The explanation of practice serves to explain the breadth and depth of nursing (Gadow 1995). Nursing must retain and develop its oral culture in the light of ever increasing pressure for written documentation (Walker 1993). In the oral handover, nurses often explain to others what has been done, the way it has been done and why it was done in that way. When was the last time you told about a funny mishap or a moving experience in your life as a nurse? These narratives or stories of nursing practice become texts, which might lead to a better understanding of the practices and languages that shape us as nurses (Rolle 2000).

Narratives are a way of knowing because through them we offer each other our experiences. The authority of narrative knowledge lies in the message itself, and is often used in conjunction with reflective practice. To continue to analyse narratives using research methodologies (Aranda and Street 2001), Frid et al.

FURTHER READING


2000) is to lose their true meaning. Writing defines who we are and what we think, it is our personal torch, and it gives depth of meaning and insight, which enriches our understanding of nursing practice.

The lack of detail given to our practice, or charting our practice and clinical observations, deprivies nursing of the uniqueness and richness of the knowledge embedded in expert clinical practice.

A broader view of nursing knowledge

So where does this leave nursing knowledge? The new boundaries advocate a much broader view of nursing knowledge, as follows:

- The traditional quantitative research findings (stripped of privileged status, equal to all other sources of evidence).
- A diverse and extensive range of qualitative methodologies.
- The other forms/methods of generating nursing knowledge such as experiential knowledge, narrative accounts from nurses and patients, dialogue and extracts from novels, poetry and film, and practice that is justified by evidence. Uses intuitive understanding and the justification of actions through reflective practice.
- This identifies the full use of the types of nursing knowledge outlined by Carper in 1978.
- Nevertheless, as we have seen from the modernist discourse of nursing, little of the above qualifies as evidence and hence cannot produce good evidence-based practice. Postmodernism states that there is nothing inherent in the nature of randomised controlled trials that makes them suitable as evidence, and nothing intrinsic to the nature of reflection in or on action, or even poetry, that makes it unsuitable (Rollef 2000).

The postmodernist approach to nursing knowledge and nursing as art enables nurses to base their practice around a variety of knowledge, in addition to the findings of scientific research. Nursing actions can be based on appeals to intuition, emotions, the written word and reflective practice. Nursing is not rejecting the methods of science, but recognising that they have no automatic claim to knowledge generation. Regarding science with scepticism opens the door to a variety of other approaches to knowledge creation. This will help to free nursing from a heavy dependence on method and might enable us to confront the world without rigid methodologies that are a necessary requirement for membership of the scientific community.

This new knowledge might not only give free rein to the imagination, intuition and creative urges, but might also help us see more clearly.

Conclusion

Nursing is a work of art, created by the nurse using all forms of knowledge and its tools. It is unique to each nurse creating it and the patient receiving it. The central concern of nurses, whether they are managers, educators, practitioners or researchers, is clinical practice. Therefore, nursing is first and foremost a practice discipline. Nursing needs a new postmodern identity to generate knowledge to enhance the art form for practice. Anything that enhances or informs practice can be justified as nursing’s unique body of knowledge. This approach is heart-warming and inspiring to anyone who loves the practice of nursing; however, it is not widely accepted. It is a vision for the future, which when combined with collective action by nurses, can instigate change in nursing knowledge in the 21st century. Nursing could then be close to being a profession with its own unique body of knowledge. Nursing knowledge, which defines new boundaries, evolves.

REFERENCES


