

Intuition & the Expert Neuroscience Nurse

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Abstract

Personal knowledge is a process whereby practice and research evolve simultaneously. Therefore, knowledge evolves with practice. It is a personal process, thus it creates a difficulty when identifying appropriate research methods of objectivity and analysis. Many researchers discount intuition as it is not an analytical process and cannot be studied. Rather, it is associated and absorbed through experience. Expert nurses integrate both intuitive knowledge and scientific development of intuitive skills, thereby enhancing the quality of practice. Today, scholars are beginning to understand the importance and value of expert intuition, especially in the neuroscience arena. It is this personal knowledge and intuition of expert neuroscience nurses that is the focus of this paper.

Key Words

Intuition, expert nurses, advanced practice nurse, neuroscience

Introduction:

Foreknowledge is formed by theory, principles and prior experience. Expert nurses or advanced practice nurses, foster intuitive knowledge, an understanding without rationale. It is based on background understanding, skilled clinical observation and is related to the theoretical structure of nursing through the concept of pattern. Pattern involves consideration of the total person–environment interaction. It is central to several theorists including Rogers, Newman and Parse.

Intuition, in the past, has rarely been given legitimacy as a sound approach to clinical judgement. Instead, it has been viewed as guess-work, unfounded knowledge or irrational acts. Expert nurses often speak of ‘gut feelings’ or a ‘feeling that things are not quite right’. These feelings are unexplained on paper – perhaps a perfect score on the Glasgow Coma Scale, but the ‘gut’ tells the expert nurse otherwise. This makes quantitative researchers uneasy, as these perceptual ideas must move to conclusive statistical evidence. However, it is through experience and anecdotal evidence that the expert nurse has shown time and again that intuition and ‘gut feelings’ are real and should not be dismissed.

Today, there is the move towards advanced practice nurses, clinical nurse specialists, clinical nurse consultants and nurse practitioners. These positions possess skills far

beyond text book knowledge. Advanced practice nurses are recognised as registered nurses who have acquired the expert knowledge base, complex decision making skills, and clinical competencies for expanded practice (Tymianski, Sarro & Green, 2012). Skills through experience, critical thinking and volunteering add great value to their knowledge base. Intuition, also, is an essential component of complex decision-making for the expert nurse.

In differentiating the novice nurse from the expert in clinical practice, the intuitive grasp is acknowledged (Lyneham, Parkinson, Denholm 2008). Ethical dilemmas, expert nursing and the ability to recognise and predict behaviour based on ambiguous signs, require applications of intuitive knowledge. Nursing practice involves multiple ways of knowing patients. There is a need to accept more than one mode of thought and emphasise the value of intuition in nursing. Clinical knowledge is gained over time and clinicians are often unaware of these gains. Interpretive description of actual practice uncovers this clinical insight (Ruth-Sahd, 2014; Rew & Barrow, 1987).

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Neuroscience:

Neuroscience is a specialised area of practice. Neurological illness often influences behaviour, either as a result of trauma, or due to pathophysiological changes within the brain itself. Patients with neurological illness present unique challenges to neuroscience nurses. Making sense of nursing observations and neurological assessments are key factors in determining the best care for the patient. The ability to recognise and comprehend subtle signs before they manifest into morbid outcomes, is the skill of the expert neuroscience nurse. Prioritisation of events is particularly important. The expert nurse will prioritise actions, events and observations, thus permitting a fluent performance in patient care. Skilled observation is noted as an expert appraisal. In neuroscience, the subtle changes give valuable information about the level of brain involvement, nature of involvement and the direction of the disease process. It is a pattern to be recognised. The expert neuroscience nurse is able to assess and interpret these findings and plan an appropriate course of action.

Expertise had not been adequately described in nursing until theorists such as Benner, Parse and Rogers commented in the 1980's. Their views acknowledged and supported the notion that expert nurses utilise intuition in daily patient care. This fosters the idea that expert neuroscience nurses are pivotal in both teaching and caring for the patient and family.

Nursing observations, like measurements, involve construction as a process of knowing. By observing and noting phenomena, the neuroscience nurse is constructing patterns and variables (Rogers, 1970; Newman, 1986). It is through this observation that the expert nurse becomes aware of the construction process, which involves separating variables from their unity. Explained further, this means that observations (vital signs and Glasgow Coma Scale) are taken from the patient and analysed together to form a picture in time. Valuing the observations taken, the nurse forms a picture of how that patient is progressing or deteriorating. Cowling (1993), suggests that the process of profiling the phenomena, rather than assessing the person, is more congruent as a constructing process. Variables are compared with one another. There is a search for an overriding theme. Rogers (1990) and Parse (1987), suggest that pattern recognition, or clusters of behaviour, are important; yet, eventually must be interrelated with the whole. The assumptions of the skilled nurse are that these

variables are in unity and have significance for nursing in their unity, as well in their separateness. The construction of observations is what becomes critical in neuroscience nursing practice. The ability to recognise subtle changes, as in degrees of consciousness, before more devastating signs appear, is of utmost importance (Hickey, 2014).

Theorists:

Nursing practice has been theory driven. Several nurse theorists acknowledge nursing's knowledge base, using a specific form of the nursing process (Speziale, Streubert & Carpenter, 2011; Rogers, 1970, 1994; Parse, 1981, 1987; Roy, 1984; Orem, 1985; Barrett, 1988; Taylor, 1991). The framework of such theories has led to specific modes of practice within the knowledge-base of nursing (Mitchell, 1992). It can be acknowledged that when nurses enter a practice situation, fusion of knowledge from life-long learning experiences, as well as the structure of knowledge of the discipline of nursing learnt through education and training, is utilised.

Rogers' *Science of Unitary Human Beings*, is a particular lens through which to view the universe. Rogerian ontology supports holism, in that the human and the environment are integral and in mutual, forward processes at all times. It is therefore assumed that humans can never go backwards. That is, learning through experience takes place and one never walks the same path twice (Lutjens, 1991). Nursing as an art and a science gained popularity in the 1980's (Pearson, 2013). Nursing care has both an aesthetic and scientific component (Tettero, Jackson & Wilson, 1993). Parse (1992), compares nursing to the performing arts - the nurse is the artist who "...unfolds the meaning of the moment with a person or family consistent with personal knowledge and cherished beliefs." (Parse, 1992. p.147). It is this personal knowledge that enables each individual nurse to practice and synthesise care in a unique way.

Neuroscience nursing has largely been led by the Americans. The founders of the American Association of Neuroscience Nurses (AANN) Agnes Marshall-Walker and Barbara Therrien were strong leaders in neuroscience. In the late 1960's, they led by example and were visionaries for neuroscience nursing, stating "Our future is determined by the attitude we take" and "Tomorrow will be an era born of today and yesterday". Agnes stayed a strong encouraging voice for neuroscience nurses and was active in the AANN and World Federation of Neuroscience Nursing (of which she also founded in 1969), until

her death in 2010. Since then, the AANN and many other neuroscience professional associations, including the Australasian Association of Neuroscience Nurses (ANNA), have led the way, improving neuroscience nurse education and facilitating a supportive platform for the specialty to grow.

Intuition debate:

Intuition is defined as an irrational unconscious type of knowing. Negative responses have been evoked when referring to intuition (Benner & Tanner, 1987; Rew & Barrow, 1987; Young, 1987). Intuition has been viewed as irrational acts, guesses or hunches. It is the "black-market version of knowledge" (Benner & Tanner, 1987, p.30). Rational data gathering is seen as the principle way to gain knowledge (Young, 1987; Correnti, 1992). Therefore, intuitive perceptions have been seen as opposing this empirical factual knowledge base. Benner & Tanner (1987) suggest that intuitive knowledge and analytic reasoning are not in opposition, rather, they work together. Lester (1993), surmises that intuition is not a mystical sense without foundation. It is a

"... means of higher cognition which can be used to improve personal and professional performance..." (Lester, 1993. p.7).

In trying to give more credence to nursing intuition, a descriptive phenomenological study was undertaken by Hasani, Abdi, Jalali & Salari (2016). It looked at a limited number of Intensive Care Nurses and their understanding of intuition. The findings revealed that the more interested the nurses were in their patients and their conditions, the more their intuition flowed. It gave the opportunity to discuss their experiences and reaffirmed that their intuition should be followed.

Personal Knowing:

Components of personal knowing include experiential knowing, interpersonal knowing and intuitive knowing (Moch, 1990). Personal knowing is related to the theoretical structure of nursing through the concept of pattern (Moch, 1990). Pattern, a central theme also to Rogers (1970), Newman (1979, 1986) and Parse (1981), involves consideration of the total person-environment interaction. Each nurse-patient encounter influences and enriches both participants and brings about a pattern for knowing each-other.

"Objective information can be transferred; personal knowledge can only be evoked." (Moch, 1990. p.169).

Personal knowing is described as the discovery of self-and-other arrived at through reflection and synthesis of perceptions and connecting with what is known (Moch, 1990). There is an unavoidable act of personal participation in the nurses' individual knowledge. Knowing may be tacit or verbally inexpressible, but articulated through the nurses' practice. It is this personal knowing that is essential to the development of the practice of expert nursing.

Moch (1990), describes intuition as an act of indwelling, something from within the self. Perceptual awareness is pivotal to nursing judgement that

"...begins with vague hunches and global assessments that initially bypass critical analysis; conceptual clarity follows more often than it precedes." (Benner, 1984. p.xviii).

Benner (1984) suggests that experts do not stop at hunches or vague feelings. Neither are they ignored. Vague feelings are the medium by which early identification of deterioration and the search for confirmatory evidence are expedited.

Experienced-based skill acquisition is safer and quicker when it rests upon a sound educational base from which to build (Rogers, 1970; Benner, 1984). The Dreyfus Model of Skill Acquisition, which Benner attests to, states that the student passes through five levels of proficiency: novice, advanced beginner, competent, proficient and expert. However, expertise may not be attained by all, and that is reasonable. Kuhn (1962; 1970) observed that "knowing that" and "knowing how" are two separate kinds of knowledge. Experience does not necessarily refer to longevity in a position. Rather, it is an active process of refining and changing preconceived ideas when applied to specific situations. Notwithstanding, experience is a requisite for expertise. An expert nurse would problem-solve differently from that of a beginner. This can be attributed to the know-how acquired through experience. The expert nurse

"... perceives the situation as a whole, uses past concrete situations as paradigms, and moves to the accurate regions of the problem without wasteful consideration of a large number of irrelevant options .." (Benner, 1984. p.3).

Expert neuroscience nurses:

“Neuroscience nursing is in constant evolution, as research, science, and experiential knowledge add to our practice base as neuroscience nurses” (Tymianski, Sarro & Green, 2012 p. iv).

Expert neuroscience nurses recognise subtle physiological changes. It might be a subtle change to conscious state, a little more vague than previously, yet still scoring 15/15 on their GCS. The expert neuroscience nurse knows that this subtlety is a mark of concern. Similarly, ‘crow’s feet’ are a great sign of age, yet when one side disappears the expert nurse knows that this is a sign of a facial weakness. These finely tuned abilities come from many hours of direct patient observation and continual assessment.

“...Descriptive and interpretative recording of this connoisseurship uncovers clinical knowledge...” (Benner, 1984. p.5).

Benner (1984; 1987), addresses knowledge embedded in clinical practice. Each nursing encounter provides opportunities to acquire knowledge about self-and-other. Learning is achieved through self-observation, observing others, through feeling and sensing. Perspective is acquired through intense interaction with others. This interpersonal process is the cornerstone of nursing.

A characteristic of expert nurses is that time is spent thinking about the future course of the patient. Experts will anticipate what may arise and the course of action that maybe required (Sheer & Wong, 2008). Benner (1984) surmises that the expert no longer relies on an analytical principle, rule or guideline to interrelate the patient and current situation with appropriate action. The expert has an intuitive grasp and zeroes in on the accurate region of the problem (Lyneham, Parkinson & Denholm, 2008).

Capturing the descriptions of expert behaviour is difficult, as the expert functions from a deep understanding of the whole situation. When expert nurses intervene in patient care *“...some of the knowledge embedded in their practice becomes visible. And with visibility, enhancement and recognition of expertise becomes possible.”* (Benner, 1984. p.36). The expert is able to create order amidst the chaos, manage well in crisis, be aware of the total picture and recognise the team as an integral part of their effectiveness. People who have a gift for gardening are sometimes described as having a ‘green-thumb’. Likewise, as outlined by Jensen, Back-Pettersson

& Segesten (1993), some nurses possess a ‘green-thumb’ for nursing. They are a role model to look up to and to emulate.

Throughout history, the nurses’ role as observer and assessor was emphasised. An excellent and innovative example of neuroscience authorship in the modern era is the work of Professor Joanne V. Hickey. Hickey operationalized the role and knowledge-base of the neuroscience nurse (Strength, 1993). Today, she remains involved in neuroscience university teaching in Texas. Her books continue to be utilised in neuroscience nursing education and are a great current resource, having been revised many times.

Recovery from neurological impairment hinges on meaningful acts of connection. Looking at life through the patient’s or family’s eyes. This gives empathy towards the patient and how the relatives may be feeling. It also encourages personal empathy within the nurse. Expert nurses often gauge a patients’ response by reading bodily cues, seeing the nuances of expressions. Recording baseline and frequent observations is critical in evaluation of patients and change over time (Hickey, 1986; 2016). The ability to observe, without machines and to make sense of what is seen, is a skill that expert neuroscience nurses possess. Continuous comparison of current to preceding findings is essential in neuroscience, since the degree of change can be rapid and dramatic or subtle and innocuous (Hickey, 1986; 2014). Oedema and rebleeding in the neuroscience setting cannot be compared with oedema or rebleeding in other body systems. The Monro-Kellie Hypothesis confirms that the skull is a rigid box in which the brain, cerebrospinal fluid and blood exists. There is only one “exit” from this box - through the foramen magnum. Therefore, if oedema or bleeding occurs, intracranial pressure increases and mortality concerns are real.

“...perhaps in no branch of medicine can a nurse be so helpful...as in the care of brain cases. I want to impress upon my readers, the absolute necessity of observing carefully each patient, in order that no transient incident may be lost ...” (Dwyer, 1920 p.163).

Although this quote was written almost 100 years ago, the skill of observation is just as important then as it is now, and it is the foundation for neuroscience nurses to build upon (Hickey, 1986; 2014).

Conclusion:

Nursing theorists of the 1980's encouraged the validation of intuition in expert nurses. Intuition is recognised as a component of the perceived view of science and a legitimate way of knowing in nursing. Most sound nursing judgements are grounded in intuition. It is important to recognise it as a process of synthesis and to avoid the mistake of devaluing intuitive judgement. Nurses bring with them to each situation, their life-long experiences as well as the structure of the discipline of and knowledge-base of neuroscience. As nurses reflect on intuitive knowing, they will individually and collectively, come to appreciate its value and express it in daily practice.

Patients present patterns of responses that expert nurses learn to recognise. Neuroscience nurses are the first to detect early changes in the patient's condition. This is based on thorough knowledge of the patient, specialty and clinical expertise. The nervous system is the most central to our functioning as human beings. Therefore, evaluation of nervous system functioning underpins all aspects of nursing assessment. It requires no tools, apart from the knowledgeable observations of the nurse. Expert nurses are able to identify problems early, set priorities quickly and delegate responsibility where appropriate. Keeping up-to-date with advances in technology and current treatment is paramount in neuroscience nursing. Professionalism and belonging to professional groups will cultivate 'cross-pollination' and will expose nurses to best practice scenarios. Learning from others in local, national and international arenas will expose the nurse to other opportunities and experiences, building upon knowledge and moulding their expertise.

Previous concrete experiences guide the expert in recognition and action. Commitment to the future roles of nurses can develop only in an atmosphere of mutual respect. The organisational framework required to support professional nursing practice and promote expert neuroscience nursing services, must be tightly bound by a shared culture, yet loose enough to promote innovation.

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