Intuition is discussed widely in nursing as one of the ways nurses make important decisions about patient care (Aflague & Ferszt, 2010). The Merriam-Webster Online Dictionary (2014) defines intuition as “a feeling that guides a person to act a certain way without fully understanding why.” Farr-Wharton, Brunetto, and Shacklock (2011) noted the body of nursing research that exists concerning the use of intuition to guide nursing care. The concept of intuition has been used broadly in nursing literature and has been studied in various settings.

The roots of understanding intuition in nursing were identified initially by Carper (1978), who drew from the earlier works of Dewey (1958) and Polanyi (1964). Carper (1978) identified the fundamental importance of intuition in ways of knowing in nursing and created a typology that attempted to categorize the different sources from which knowledge and beliefs in professional nursing practice are derived. The typology identified four fundamental ways of knowing:

1. **Empirical knowledge.** Factual knowledge from science, or other external sources, that can be verified empirically.
2. **Personal knowledge.** Knowledge and attitudes derived from personal self-understanding and empathy, including imagining the self in the patient’s position.
3. **Ethical.** Attitudes and knowledge derived from an ethical framework, including an awareness of moral questions and choices.
4. **Aesthetic.** Awareness of the current situation, seated in immediate practical action, including awareness of the patient and his or her circumstances as uniquely individual, and of the combined wholeness of the situation.

Carper’s typology has been seen as a reaction against overemphasis on empirical knowledge by emphasizing attitudes, intuition, and actions are equally integral to nursing care (Hollander, 2008).

Intuition is an integral part of nursing science that comes into play when nurses access unconscious knowledge without inhibition or second-guessing. Intuition in clinical practice is described as a “polarizing” concept (Lyneham, Parkinson, & Denholm, 2008, p. 102). Because it is intangible and often perceived as irrational (Traynor, Boland, & Buus, 2010), intuition is rejected by many as irrelevant to the decision-making process for nurses.

Despite the controversial nature of intuition as a concept, research validates its use in sound decision making among nurses. Kongsuwan, Locsin, and Schoenhofer (2011) described intuitive knowing as an important element in nurses promoting a peaceful death for their terminally ill patients. Critical care nurses reported intuitive processes guiding them in anticipating problems and knowing what to assess (Hill, 2010). Odell, Victor, and Oliver (2009) reported nurses cite intuitive processes when recognizing patient deterioration and activating the rapid response emergency team.

**Conceptual Analysis Model**

The purpose of this article is to analyze the concept of intuition as it relates to decision-making processes among novice nurses. A concept analysis was conducted based on the work of Walker and Avant (2005), who outlined the following steps:

**Growing evidence suggests intuition in nursing is an important part of effective clinical decision making that supports safe patient care. In this article, the concept of intuition as it relates to decision-making processes among novice nurses is analyzed.**
Clinical Practice

- Select a concept.
- Determine the aims of the analysis.
- Identify all uses of the concept.
- Determine defining attributes.
- Identify antecedents and consequences.
- Construct model, borderline, and contrary cases to illustrate what the concept is and is not.
- Define empirical references.

Data Sources

After a definition of intuition was drawn from a variety of sources, a review of nursing and medical literature for 1984-2014 was conducted. The key words searched in CINAHL and Medline were intuition and nursing. The CINAHL search yielded 126 citations, while the Medline search yielded 118 citations. When the search was narrowed to peer-reviewed research articles in English, 47 citations were identified. Abstracts of these articles were reviewed for this concept analysis. Nineteen articles were not specific to intuition or related concepts and were not reviewed further. For this concept analysis, 27 articles were included. In addition, standard references such as dictionaries and sentinel publications were used.

Uses of the Concept

Intuition is an abstract concept in a profession that historically has placed more importance on concrete empirical knowledge and facts for patient care. It is a misnomer, however, to call intuition a “gut instinct,” more accurately, it is a sixth sense. References to “gut instincts” or “gut feelings” tend to diminish validity and cast aspersion on intuition as a critical-thinking process. Intuition is in fact a cognitive skill used to assist assessment, causing the nurse to take clinical action leading to patient-centered care. Because intuition is a result of direct perception of information relevant at that point in time, it is scientifically valid and should not be dismissed. Nursing intuition has been identified by early nurse theorists and authors as an important type of nursing knowledge and a valid way of knowing in clinical practice (Paterson & Zderad, 1988; Rew, 1988).

The Institute of Medicine [IOM] (2011) recognized the need for nurses to be prepared better to deliver patient-centered, equitable, safe, high-quality health care services. The failure to identify severely ill or acutely deteriorating patients has resulted in high rates of adverse events, including death outside the intensive care setting (Kenward & Hodgetts, 2002; Stahel, Fakler, Fliër, Moldenhauer, & Mehler, 2010). Andersson, Omberg, and Svendlund (2006) reported several factors that underscore the importance of quick recognition of patient decline to decrease the incidence of poor patient outcomes. Nursing intuition promotes quick action and is valuable in reaching the IOM goal of delivery of safe, effective care.

Intuition is critical in the nursing decision to activate a rapid response team early in order to prevent deterioration of patients (Atkinson & Claxton, 2000). Research has shown most hospitalized patients display clinical evidence of their deteriorating physical condition for 6-8 hours before experiencing a full-blown crisis. Patient crises generally are associated with a grave prognosis; therefore, significant effort has been expended in developing and implementing systems to intervene at the earliest point possible in a patient’s deteriorating clinical course (Stahel et al., 2010). While intuition has been studied broadly in social sciences, little information exists regarding the experiences of nurses using intuition in their decision-making processes within the acute care setting where quick decision making could affect patient outcomes significantly.

Dreyfus and Dreyfus (1986) described intuition as understanding that effortlessly occurs on seeing similarities with previous experiences. Hansten and Washburn (2000) viewed intuition as an ability to discern a situation without physical evidence but with the ability to decide on appropriate action. According to Farr-Wharton and co-authors (2011), intuition in nursing is part of complex decision making, a way of knowing that is nonsequential in source and emerges from sensory sources. Authors indicated nursing intuition usually is based on previously learned information consciously or unconsciously utilized as a part of the decision-making process.

Common synonyms for intuition include perception, gut feeling, sixth sense, and instinct (Synonyms.net, n.d.). Concepts closely related to intuition include sensitivity (Sayers & DeVries, 2008), expertise (Paton, Thompson-Isherwood, & Thirsk, 2009), emotional intelligence (Kooker, Shoultz, & Codier, 2007), competence (Rischel, Larsen, & Jackson, 2008), self-knowledge (Bergdahl, Wikstrom, & Andershed, 2007), conscience (Jensen & Lidell, 2009), imagination (McCoughen, O’Brien, & Jackson, 2010), and surveillance (Kelly & Vincent, 2011).

Discussions about the concept of intuition in nursing often occur in the context of Dr. Patricia Benner’s (1984) novice-to-expert model, which was developed based on the Dreyfus model (Dreyfus & Dreyfus, 1986). In the Benner (1984) model, nurses are described as having phases of development in which they make decisions about care based on their experience. Novice practitioners make decisions based on facts and observed situational features. Advanced beginners identify global characteristics of a situation based on their growing experience. Competent practitioners have confidence and ability to cope with complex situations but lack speed and flexibility. Proficient practitioners are analytical and fluid, and can recognize deviations from normal. Expert practitioners simply experience a situation and respond in a fluid, automatic manner thought to be based on intuitive knowledge.

To address a major debate about the nature of intuition, Lynneham, Parkinson, and Denholm (2008) explored the experience of intuition in emergency nursing in Benner’s expert stage. Authors reported a reconstruction of this stage into
three distinct phases: cognitive intuition, transitional intuition, and embodied intuition. In the cognitive intuition phase, assessment of the patient is processed subconsciously and can be rationalized in hindsight. As the individual nurse continues to develop, the transitional intuition phase occurs. This phase is identified by a physical sensation or other behaviors that enter the nurse’s awareness during interactions with patients. Lastly, the embodied intuition phase is marked by the nurse placing trust in the intuitive thoughts.

Several authors described a similar process whereby nurses use various forms of evidence, either consciously or subconsciously, to reach conclusions labeled as intuition. Edwards (2007) described the concept of intuition as it relates to emergency triage as “the nursing look” (p. 73), whereby the nurse quickly scans the environment and incorporates a responsive understanding of physiological cues, pathophysiological knowledge, and knowledge about the patient into a representation that is fact-based but may appear to be affective. This process also was discussed by Harper, Ersser, and Gobbi (2007), who described the concept of intuition during nursing assessment as listening to patients, determining the congruence between patients’ words and behaviors and changes in patient status, and combining previous experience and knowledge to make judgments without the ability to state explicitly how the judgments were reached. In short, when nurses believed patients over-report or under-report their symptoms, they used their intuition and commonsense knowledge to account for these differences.

Similarly, in their study of well-being in patients after open heart surgery, Karlsson, Mattsson, Johansson, and Lidell (2010) reported nurses employed a holistic approach and observed physical and emotional signals to reach conclusions about their patients. Nurses became aware of patients’ and relatives’ exposed position following open-heart surgery. Reduced well-being was communicated by bodily and emotional signs noted by the nurses, which were captured using direct communication or intuition. Information gleaned during these interactions became a factor in treatment decisions that ultimately led to improved outcomes for patients.

McAtamney (2011) described nurses using their knowledge of norms alongside observations of maternal infant dyads to reach conclusions about relationships between mothers and infants. The study noted little information exists about how nurses make assessments of mother-infant interactions, and past research relied largely on nurses’ reports of their practice. Researchers concluded nurses draw on multiple sources of information in assessing parent-child relationships, including behavioral observations, use of risk factors, knowledge of local norms, and intuitive reactions. They found the nurse sample received little formal training on analyzing social relationships between parents and their infants, and thus relied consistently on their intuition in formulating conclusions. Shown the same case studies of mothers and infants, experienced nurses interestingly reached the same conclusions.

In their study of decision-making processes of heart specialist nurses, Dowding, Spilsbury, Thompson, Brownlow, and Pattenden (2009) posited the more complex the task, the more likely the nurse was to use intuition in the decision making. Conversely, the simpler the task, the more likely the nurse was to use a systematic and analytic approach to decision making. A drug titration decision (classed as “easier” by nurses) was compared with a “harder” palliative care referral choice. Nurses had high degrees of cognitive control in the drug task, regardless of their experience level, and far less in the palliative referral condition. However, no change occurred in the linear or nonlinear processing of information for the two tasks. Education and clinical experience were not related to agreement or information processing. Thinking in a more sophisticated way about the relationship among experience, uncertainty, decision structure, intuition, and information available may help nurses make better choices in complex situations. Researchers concluded teaching nurses about what is involved in difficult decisions and increasing awareness of the decisions (and the information and process they use to make decisions) may lead to better quality choices.

Intuitive processes were described by several authors as occurring quickly. Ramezani-Badr, Nasrabadi, Yeka, and Taleghani (2009) explored the reasoning strategies employed by Iranian critical care nurses. Nurses in that study described their intuitive decisions as sudden and occurring within seconds. Three key themes emerged concerning the nurses’ reasoning strategies: intuition, recognizing similar situations, and hypothesis testing. Other themes emerged regarding participants’ criteria for clinical decision making; patients’ risk-benefits, organizational necessities, and complementary sources of information. Findings provided a deep understanding of the decision-making strategies and criteria used by the Iranian critical care nurses regarding their clinical decision making. Participants demonstrated use of a range of reasoning strategies and criteria. The reason for using different decision-making strategies and criteria was believed to relate to patients’ situations, nurses’ knowledge and previous nursing experiences, and intuition.

Eckerblad, Eriksson, Kärner and Edell-Gustafsson (2009) described nurses’ intuitive decisions as instantaneous. The purpose of their study was to describe different conceptions of nurses’ facilitating decision-making strategies regarding weaning patients from mechanical ventilations in the intensive care unit. Key findings noted three main categories of nurses’ facilitating decision-making strategies. The intuitive and interpretative strategy featured nurses’ pre-understandings of the ventilator process. The instrumental strategy involved analysis and assessment of technological and physiological para-
meters concerning weaning from the vent. The cooperative strategy was characterized by interpersonal relationships among nurses in the workplace. Absence of a common strategy and lack of understanding of others’ strategies were a source of frustration for some of the nurses and the researchers. Nurses’ goals were to end mechanical ventilator support, create a sense of security, and avoid further complications. However, researchers found strategies to meet these goals often were developed intuitively and revised instantaneously by nurses as they interacted with the patient, colleagues, and the patient’s significant others.

Defining Attributes

Defining attributes are the qualities most frequently associated with a concept (Walker & Avant, 2011). Four defining attributes of intuition identified in the literature include knowledge that is not preceded by inference, knowledge that is holistic in nature, immediate knowledge independent of linear reasoning processes, and knowledge drawn from synthesis rather than analysis. In the domain of nursing practice, Benner (1984) calls this phenomenon future think. A mental simulation is made possible by completing a search using high-level representations and using variable information. A substantial amount of the information used during problem solving is accessed by pattern recognition and is thus intuitive in nature. Finally, intuition enables rapid selection from alternatives, without conscious awareness. According to Benner, the link between conscious problem solving and intuition is tenuous for experts; intuition plays a key role in the way expert nurses make decisions.

Antecedents and Consequences

Antecedents are events or incidents that must happen prior to the occurrence of the concept (Walker & Avant, 2011). Identification of the antecedents and consequences of intuition also allows determination of the social context in which the concept is used. In the case of intuition, knowledge and experience are antecedents. In almost all the reviewed articles, intuition seemed to exist only in the presence of knowledge and experience; this was true even if these were not used consciously during intuitive decision making. A nurse cannot experience intuition without a search for understanding a truth and receptivity to intuition. By combining the antecedents of intuition, the nurse can trust his or her intuition safely, welcome it into the thought process, and take immediate action as necessary (Benner, 1984).

Consequences are events that occur as a result of the occurrence of the concept (Walker & Avant, 2011). In the case of intuition, consequences reported in the reviewed articles included peaceful death (Kongsuwan et al., 2011), improved foresight during change of shift report (Hill, 2010), early recognition of patient deterioration (Odell et al., 2009), and effective ventilator weaning (Eckerblad et al., 2009). Globally, these consequences led to safer patient care.

Case Presentation

Walker and Avant (2011) recommended sample cases be presented to demonstrate the concept under analysis. Model, related, and contrary cases are used to demonstrate the concept of intuition. A model case offers an example of the concept that demonstrates all defining attributes of the concept to provide a pure exemplar. Related cases illustrate instances that are related to the concept but do not contain all its defining attributes. A contrary case, which illustrates a situation in which defining attributes do not occur, demonstrates what the concept is not (Walker & Avant, 2011).

Model Case

The primary nurse, Ruth, was taking change-of-shift report about Mr. Jones from the night shift nurse, Anne. The history of the present illness indicated Mr. Jones was found semi-comatose with alcohol intoxication in his apartment. He lived alone and was a heavy drinker who was admitted frequently to the hospital. Mr. Jones was admitted from the emergency department at 1:00 a.m. with a diagnosis of high blood pressure, and a history of hypertension and chronic alcoholism. Anne reported Mr. Jones’ condition was stable during the night without any untoward episodes. She also reported he had stable vital signs and was ready for discharge.

Ruth’s physical assessment revealed Mr. Jones was alert and oriented to person, place, and time. He had stable vital signs, and his pupils were equal and reactive to light. Despite these findings, Ruth’s instinct suggested something was wrong. Mr. Jones was very talkative but his voice was slurred. Ruth did not believe this was related to his drinking. She monitored him closely throughout the shift until he could be examined by the primary physician. The resident physician attributed Mr. Jones’ behavior to his alcohol consumption and wrote orders for discharge. Ruth discussed her concerns about Mr. Jones’ speech with the resident physician, who insisted Mr. Jones be discharged. Ruth persisted and presented her concern to the attending physician, who ordered Mr. Jones be monitored for 1 more day. The next morning’s nursing assessment found Mr. Jones was unable to ambulate to the bathroom because he could not move his left arm and leg. He also had a facial droop. Mr. Jones was diagnosed with a left-side cerebrovascular accident and transferred to the stroke unit.

This model case has all the defining attributes of the concept of intuition. Ruth’s assessment of Mr. Jones was holistic in nature. Her immediate knowledge that something was wrong was not preceded by inference; it was based on the convergence of several pieces of assessment data but was independent of linear reasoning processes. Ultimately, Ruth’s knowledge about the case was drawn from synthesis rather than analysis. Ruth’s search
for understanding a truth and her receptivity to intuition led to the safe passage for Mr. Jones through the process of admission to the stroke unit.

**Related Case**

Reba, a pulmonary unit nurse, floated to the medical unit to care for Ms. Brown. She knew Ms. Brown, who had transferred recently from the pulmonary unit to the medical unit. Ms. Brown was diagnosed and treated for acute exacerbation of chronic obstructive pulmonary disease; she was using bilevel positive airway pressure (BiPAP) to assist with breathing. Ms. Brown was glad to see a familiar face and was able to build rapport with Reba.

Ms. Brown would suffer from shortness of breath if the BiPAP was removed for a minute to feed or bathe her, and her color would become dusky. According to Reba, this was not new for the patient and she always improved after taking deep breaths. During a bath, Ms. Brown experienced some shortness of breath. Reba assessed Ms. Brown’s vital signs; because they were normal, she felt comfortable with Ms. Brown’s condition.

Near the end of the shift, however, Ms. Brown became very anxious and began complaining of increased restlessness and shortness of breath. Reba recalled that Ms. Brown frequently had heightened anxiety episodes with increased shortness of breath and hypoxia when she was on the pulmonary unit. From her knowledge working in a specialized unit, she interpreted the patient’s behavior as consistent with the pathophysiologic principle that patients with chronic lung disease often need a hypoxic drive to sustain respiration. Per physician orders for intravenous morphine 2-5 mg every 4 hours as needed for pain, Reba gave Ms. Brown 5 mg of morphine. No attempt was made to remove the pacemaker. According to Reba, Ms. Brown became dusky. According to Reba,

**Contrary Case**

Robert was a graduate nurse on a telemetry unit assigned to Mr. Sudan, a 42-year-old male patient who had undergone pacemaker placement. After taking the patient’s vital signs, Robert assessed Mr. Sudan to be stable. As a new nurse, Robert reviewed his medical-surgical textbook and checked the telemetry monitor every 20-30 minutes to ensure the pacemaker was functioning properly. Several times during the shift, Robert asked the charge nurse to observe the patient for any signs of pneumothorax. Robert’s care was based on logic, textbook knowledge, and the experience of a seasoned preceptor.

This example clearly shows the antithesis of intuition. None of the defining attributes are present. Knowledge was not immediate and was not independent of linear reasoning.

**Empirical Referents**

Empirical referents are processes by which the concept of intuition can be measured (Walker & Avant, 2011). One of these empirical referents is the sensing/intuition dichotomy, which describes the preference for gathering information based on intuition versus more concrete sense-based learning styles. The Meyer-Briggs Type Indicator (MBTI) and the Miller Intuitiveness Instrument (MII) are two tools used to assess nurses’ styles of gathering and utilizing information to make decisions about their patients.

The MBTI is a self-administered instrument that assesses preferred learning styles and how individuals process information to make decisions (Li, Chen, Yang, & Liu, 2011). The 126-item MBTI Form G provides data on four sets of preferences, resulting in 16 learning styles or types. A type is the combination of the four preferences:

1. **Introverts.** Those who find energy in the inner world of ideas, concepts, and abstractions.
2. **Extroverts.** Those who prefer interaction with others, and are action oriented.
3. **Sensing.** Those who prefer to rely on information that is gathered by the five senses.
4. **Intuitive.** Those who seek patterns and relationships among the facts they have gathered.

The determination of these preferences detects how people interpret the environment and process decisions. The last two indicators, sensing and intuitive (intuition), have been most helpful in detecting and understanding the thought process of nurses utilizing intuition in decision making.

Miller (1995) developed and tested the Miller MII as a self-assessment tool for use with skilled clinicians. It is considered a reliable (Cronbach’s coefficient 0.9432) and valid (test-retest r=0.8511) measure of intuition. A study conducted by Miller further defined characteristics of the tool and provided the framework for construction of the MII, validating the tool’s correlation with the MBTI. Assessment with the MII has shown intuitive nurses rely on their intuitions in decision making. Intuitive nurses prefer intuition to sensing as a way to process information. Likewise, nurses who delay making decisions until all the information has been obtained are more intuitive than those who make decisions abruptly.

**Implications for Nursing**

Intuition in practice has been linked to enhanced clinical judgment, effective decision making, and crisis aversion (Cioffi, 2000; McCloughen et al., 2010). The intuitive concept needs to be promoted early in nursing curriculums. Nursing educators must promote intu-
itive skills early in nursing programs to improve patient care. Intuitive skill application is needed in education, practice, and research. Promotion of the use of intuition as an adjunct in clinical decision making should begin in undergraduate education and be continued in graduate nursing studies (Orme & Maggs, 1993).

In 2008, the Robert Wood Johnson Foundation (RWJF) and the Institute of Medicine (IOM) launched a 2-year initiative to respond to the need to assess and transform the nursing profession. The appointed committee on the RWJF Initiative on the Future of Nursing (IOM, 2011) was charged with producing a report that would make recommendations for an action-oriented blueprint for the future of nursing.

As part of its 2011 report, The Future of Nursing: Leading Change, Advancing Health, the committee considered many challenges that face nursing education and key solutions required to advance it. Members determined nurses should achieve higher levels of education and training through an improved education system that promotes seamless academic progression and increased competency (IOM, 2011). Additionally, the National League for Nursing (NLN) expects nursing graduates to demonstrate advanced skills. Nursing programs are required to measure intuitive ability as an outcome criterion for accreditation. This process of program accreditation is considered an indicator that a professional program offers a quality product (NLN, 2008).

Finally, the limited body of knowledge concerning nursing intuition suggests the need for more studies that explore the nature and use of intuition on every level and in every setting of clinical nursing practice. Further research will support evidence-based practice. It also will supplement the preparation of nurses to make clinical decisions with greater prudence.

Growing evidence suggests intuition in nursing is an important part of effective clinical decision making that supports safe patient care (IOM, 2011). Intuition is a holistic, complex, experience-, and knowledge-based approach to decision making. Achieving clarity in what contributes to intuition in nursing is an important step in designing research to illuminate the role of intuition in providing safe nursing care.

### Conclusion

Intuitive skill application is needed in education, practice, and research. Nursing education must promote intuitive skill development to improve direct patient care. Promotion of the use of intuition as an adjunct in clinical decision making should begin in undergraduate training and be continued in graduate nursing education (Jensen & Lidell, 2009; NLN, 2008; Orme & Maggs, 1993). According to Rew (2000) and reiterated by the IOM (2011), the task of building a comprehensive science of nursing depends on acquiring and applying knowledge from rational and intuitive cognitive cases.

Intuition in practice has been linked to enhanced clinical judgment, effective decision making (McCutcheon & Pincombe, 2001), and crisis aversion (Cioffi, 2000; IOM, 2011; NLN, 2008). The expectation of advanced nursing skills upon graduation (McCloughen et al., 2010) necessitates more rigorous training in undergraduate and graduate programs. Intuitive concepts should be introduced early in nursing and medical curriculums to ensure novice clinicians will be well-equipped and more confident in making effective and timely decisions about their patients.

Additionally, the limited body of knowledge on nursing intuition suggests the need for more studies that explore the nature and use of intuition on every level and in every setting of clinical nursing practice. Further research will support evidence-based practice. It also will supplement the preparation of nurses to make clinical decisions with greater prudence.

Growing evidence suggests intuition in nursing is an important part of effective clinical decision making that supports safe patient care (IOM, 2011). Intuition is a holistic, complex, experience-, and knowledge-based approach to decision making. Achieving clarity in what contributes to intuition in nursing is an important step in designing research to illuminate the role of intuition in providing safe nursing care.

### REFERENCES


**ADDITIONAL READINGS**

