Intuition in Clinical Decision Making
Differences Among Practicing Nurses

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Purpose: To examine the relationships and differences in the use of intuition among three categories of practicing nurses from various clinical units at a medical center in the Midwest. Design: Descriptive, correlational, cross-sectional, prospective design. Method: Three categories of nurses were based on the clinical unit: medical/surgical nurses (n = 42), step-down/progressive care nurses (n = 32), and critical care nurses (n = 24). Participants were e-mailed the Rew Intuitive Judgment Scale (RIJS) via their employee e-mail to measure intuition in clinical practice. Participants were also asked to rate themselves according to Benner’s (novice to expert) proficiency levels. Findings: Nurses practicing at higher self-reported proficiency levels, as defined by Benner, scored higher on the RIJS. More years of clinical experience were associated with higher self-reported levels of nursing proficiency and higher scores on the RIJS. There were no differences in intuition scores among the three categories of nurses. Conclusion: Nurses have many options, such as the nursing process, evidence-based clinical decision-making pathways, protocols, and intuition to aid them in the clinical decision-making process. Nurse educators and development professionals have a responsibility to recognize and embrace the multiple thought processes used by the nurse to better the nursing profession and positively affect patient outcomes.

Keywords: intuition; clinical decision making; Benner’s model

In the practice of nursing, clinical decision making is the cornerstone of excellent nursing care (Payne, 2015). Nurses continually make judgments that involve assessment and diagnosis of client nursing needs and determine appropriate actions to address the situation (Polge, 1995). Clinical judgment is of the utmost importance; it is a complex task that involves critical thinking skills. The complexity of decision making in clinical nursing practice (Tanner, 2006), the high acuity of client conditions with multiple comorbidities, the expanding knowledge and technology of nursing practice, and the life-threatening situations call for the nurse to be highly skilled in critical thinking (Reilly & Oermann, 1992).

Critical thinking is composed of two cognitive processes used in making clinical nursing judgments, analytical and intuitive (Corcoran-Perry & Bungert, 1992). Analytical judgment-making is considered rational, logical, linear, and sequential (Corcoran-Perry & Bungert, 1992). The nursing process is considered an example of analytical judgment making (Tanner, 2006). Multiple resources, such as evidence-based protocols, clinical pathways, interdisciplinary input, and personal

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knowledge are available to guide the nurse in the decision-making process. Tanner (2006) explains that due to the complexity of clinical decisions, one process or pathway does not adequately address all factors affecting clinical decisions. On the other hand, intuitive judgment making is considered creative thinking, “gut reaction” (Polge, 1995), “understanding without a rationale” (Benner & Tanner, 1987). Intuition manifests the artful expression of nursing and is a core element of holistic nursing (Schraeder & Fischer, 1987). Studies have shown the complexity of decision making for nurses, which include cognitive, intuitive, and experiential aspects (Jenks, 1993). The intuitive pattern of knowing in clinical decision making has been studied by Rew (1989, 1990, 2000) and Benner and Tanner (1987).

Benner’s ideas about the holistic view of situations relies on the experiential pattern of knowing, which describes nurses moving from novice stage, in which they rely on theory for decision making, to a stage of expert decision making (Jenks, 1993). The seminal work by Patricia Benner (1982, 1984) established the relationship between intuition and expert clinical nursing practice. Benner’s (1984) model, novice to expert, is well-known in both the nursing education and clinical practice community. Benner proposed that intuitive critical thinking is an essential component of expert nursing, whereas the novice nurse (beginner) is primarily task oriented and relies on analytical critical thinking when using the nursing process to make clinical judgments. More recent work suggests that nurses in surgical and intensive care settings (King & Clark, 2002), in critical care (Polge, 1995), in the emergency department (Lyneham, Parkinson, & Denholm, 2008), from various units (Bjork & Hamilton, 2011), nursing students to experienced nurses (Pretz & Folse, 2011), and novice nurses (Ruth-Sahd & Hendy, 2004), use intuition in clinical practice. However, all studies reported that either the “expert” nurse or nurse with more clinical experience uses intuition to a greater degree compared with nurses with less clinical experience.


**Study Purpose**

Research has shown a positive relationship between “expert” nurses and nurses with more clinical practice experience and greater use of intuitive thinking in their clinical decision-making process. No research was found that has examined both relationships and differences in nurses from different clinical units with varying amounts of clinical experience and the use of intuition. Thus, the purpose of this study was to examine the relationships and differences in the use of intuition among categories of practicing nurses from different clinical units at a medical center in the Midwest.

**Review of the Literature: Clinical Decision Making in Nursing Practice**

There are several clinical decision-making models that have been explored to support nurses’ clinical decisions. Banning (2006) reported the use of three main models in nursing practice: information-processing model, intuitive-humanistic model, and O’Neill’s clinical decision-making model. Another clinical decision-making model, well-known in nursing, is Benner’s (1982) novice to expert.

Nursing experience and intuition are related (Benner, 1982, 1984; Payne, 2015; Polge, 1995; Pretz & Folse, 2011). As nurses gain more experience and are exposed to more clinical situations, they are able to reference different scenarios in their intuitive thought process. Patricia Benner has conducted the most research with intuition as it applies to the nurse’s clinical decision making. In terms of nursing proficiency levels, Benner supports the use of intuition in the expert nurse. Benner and Tanner (1987, p. 23) define intuition as “understanding without rationale.” The expert nurse no longer relies on analytical processing but also has an intuitive understanding of the situation. This intuitive understanding allows the nurse to focus on a situation rather than exploring inapplicable interventions (Benner & Tanner, 1987).

In an effort to combine Benner’s foundational work on nursing proficiency levels and expert intuition with physiological definable elements of intuition, Payne (2015) developed the theory of intuitive decision making in nursing. This theory is based on Benner’s (1984) *From Novice to Expert* and Damasio’s...
somatic maker hypothesis (Payne, 2015). The somatic maker hypothesis is both anatomical and cognitive, triggering responses both emotional and physical during the decision-making process (Payne, 2015). This theory incorporates the nonconscious elements from Benner and Damasio of nursing experience, pattern recognition, memory, and task-specific knowledge. These elements form an intuition/somatic state, which develop into a skin-conductive response and finally an advantageous decision. Payne (2015) recognized the many implications of the theory including research, educational, theoretical, and clinical. In terms of educational implications, this theory could measure, objectively, the development of nursing intuition in the nursing student or new graduate nurse, helping determine which situations or simulations develop intuition (Payne, 2015). Perhaps one of the most important implications of this theory is the ability to cohesively combine the theory with other models of nursing practice and clinical decision making (Payne, 2015). The nursing process is the clinical decision pathway taught in nursing curricula. If research could combine these two theories to determine at which point in the nursing process intuition becomes relevant, there could be a better understanding of elements that influence the decision-making process. Nursing practice based on evidence is also widely taught and is the foundation of nursing interventions. When combining evidence-based practice and Payne's theory, research could determine if certain evidence-based practices are more or less guided by intuition.

Benner's support for intuition in the expert nurse is foundational and well-established; however, there is research to support that intuitive thought is present in all nursing proficiency levels and nursing students. King and Clark (2002) found support for the use of intuition at all levels of nursing proficiency, as defined by Benner. Nurses defined as advanced beginners were found to have vague intuitive feelings described as uneasiness or happiness and were unsure how to respond to such feelings (King & Clark, 2002). Competent nurses were found to have intuition in relation to their ability to recognize more subtle patient cues, reference situations already experienced, and use intuitive thinking to search for more precise clinical answers (King & Clark, 2002). Nurses at the proficient level identified knowledge, observation, and experience as influences during their intuitive experiences in patient care (King & Clark, 2002). Moreover, intuitive feelings in the expert nurse led to a more rapid assessment of patient data, preventing patient demise (King & Clark, 2002). The expert nurse's intuitive patient assessment led to analytical processing, obtaining concrete knowledge, and definable evidence to support the suspected patient situation (King & Clark, 2002). Expert nurses stand out in their intuitive assessment because they are able to make a rapid intuitive assessment and use that knowledge to guide them in concrete data collection. Whereas, nurses of a lower proficiency level may have an idea of something lingering in patient care but are unsure how to use intuition to better assess and plan for changes in patient care. King and Clark’s findings support the concept that intuition is present in all nursing proficiency levels. This finding gives validity to the concept of educating students and those nurses less experienced in the concept of intuitive thinking.

King and Clark (2002) are not the only researchers to explore intuition in nursing proficiency levels other than the expert nurse. Ruth-Sahd and Hendy (2004) explored intuition in the novice nurse examining what past experiences influence the nurse’s use of intuition. The researchers state this information is useful because novice nurses are called on to make rapid bedside nursing assessments and judgments often using underdeveloped intuitive judgment (Ruth-Sahd & Hendy, 2004). Greater intuitive thinking was identified in novice nurses who were older, had experienced more hospitalizations, and had more social support from family and friends (Ruth-Sahd & Hendy, 2004). These findings support the use of intuition in the novice nurse and determine what factors may influence intuitive thinking.

Intuition in nursing is oftentimes referred to as a “gut feeling” or associated with some type of physiological response. The ability to identify intuitive feelings with concrete physiological responses gives the research on intuition more tangible and definable meaning; it provides validity for the use of intuition. As mentioned above, intuition increases as the nurse gains more experience. Payne (2013), based on the background that experienced nurses make better clinical decisions using intuitive processing, compared the physiological response between senior-level nursing students and experienced nurses during their decision-making process. Participants were evaluated based on an electrodermal activity
recording to measure skin conductance response and precursory skin conductance response, or perspiration, during two clinical scenarios (Payne, 2013). Findings suggested that experienced nurses underwent skin conductance responses and precursory skin conductance responses at a significantly higher rate than senior-level nursing students (Payne, 2013). Payne also assessed scores between the two groups with an instrument that measured the emotional impact of decision making. No significant difference between the two groups in terms of skin conductance response was found; however, there was a significant difference in precursory skin conductance response with experienced nurses having higher scores (Payne, 2013). This study finding supports the concept that there are measurable physiological experiences when nurses use intuitive thinking. The research also supports that the experienced nurse is able to recognize a clinical situation that stimulates his or her intuitive thought process. Nursing students measured significantly lower in their physiological response during clinical decision making. Senior nursing students can also be described as novice nurses. To think that accomplishments by senior nursing students such as passing boards, graduation, or obtaining employment puts them on the same level of clinical decision making as the experienced nurse is naïve. Having a better understanding of when intuitive thinking becomes a significant part of the nurses’ thought process can aid the profession in terms of nursing education, recruitment, and development.

Payne is not the only researcher to explore the physiological or “gut feeling” associated with intuition. In a qualitative study, Cork (2014) assessed trauma nurses’ “gut feeling” to determine the severity of patient injuries and whether or not to alert a trauma team. Cork (2014) found that patient injury severity scores were equally comparable when nurses used their “gut feeling” as part of the score calculation, opposed to situations when they did not identify “gut feelings.” Based on this finding, Cork (2014) suggests that intuition is a valid part of the nurse’s clinical decision-making process. Cork (2014) also had participants perform self-ratings according to Benner's proficiency levels. The participants either rated themselves as proficient or competent, suggesting that intuition plays a role in clinical decision making at these proficiency levels (Cork, 2014).

The drive to study intuition is not confined to the nursing profession. Behavioral sciences also value the use of intuition in clinical practice. Witteman, Spaanjaars, and Aarts (2012) explored the use and application of intuition among clinical psychologists. The researchers found similar concepts between psychologists and nurses in regards to intuition. Research participants explained intuition would be followed when treatment did not go according to plan or when time pressures required an intervention (Witteman et al., 2012). Participants also noted the use of intuition with other diagnostic criteria; that is, using their intuition as a hypothesis to test further treatment (Witteman et al., 2012). Characteristics of a situation were also noted to affect intuition, indicating the use of intuition is not uniform, much like the nursing profession (Witteman et al., 2012).

Method

Research Design/Setting

This study used a prospective, cross-sectional, descriptive correlational research design. This non-experimental study took place in one large medical center in the Midwest.

Research Questions

In nurses in a medical center in the Midwest, according to Benner’s (1984) model,

1. What is the relationship between self-reported levels of nursing proficiency (novice to expert) and the use of intuition to make clinical judgments?
2. What is the relationship between self-reported levels of nursing proficiency (novice to expert) and years of clinical experience in nurses?
3. What is the relationship between years of clinical nursing experience and use of intuition to make clinical judgments?
4. Is there a difference in the use of intuition to make clinical judgments in nurses with various clinical backgrounds?

Operational Definitions

The concept of intuition was measured using Rew’s (2000) Intuitive Judgment Scale (RIJS; see Table 1). The concept of years of clinical nursing experience was measured by self-report from the
Table 1. Rew Intuitive Judgment Scale© (Lynn Rew)

The following scale is not a test. Please indicate how much you agree with each statement as it relates to your clinical nursing practice. Circle only one number per item to correspond with what you usually do in clinical practice. Use the following scale for your response.

7 = Strongly agree
6 = Agree
5 = Slightly agree
4 = Uncertain
3 = Slightly disagree
2 = Disagree
1 = Strongly disagree

1. I would prefer to create something new than to build something from a kit.
2. I am willing to take specific action to avert an emergency even when there are no clear signs that the patient is in trouble.
3. I trust my feelings as well as concrete data when assessing a patient’s condition.
4. I am willing to intervene with a patient even when my feelings contradict some of the assessment data.
5. There are times when I suddenly know what to do for a patient, but I don’t know why.
6. When I have a “funny feeling” about a patient, I gather more concrete data before deciding what to do.
7. There are times when the steps of the nursing process are not useful in planning a patient’s care.
8. Many decisions that I make about my patient’s care are unique to his or her situation.
9. I will trust my gut feelings about a patient when I think a decision should be made quickly to avert an emergency.
10. Many of my decisions about patient care are based on experience rather than on scientific theory.
11. I feel best about a decision I make about nursing care when all the objective data support it.
12. I am inclined to make decisions based on a sudden flash of insight.
13. There are times when I immediately understand what to do for a patient, but I can’t explain it to other people.
14. There are times when I feel that I know what will happen to a patient, but I don’t know why.
15. When using standard nursing care plans, I like to rely on my own sense about what else to do for my patient.
16. There are times when a decision about my patient’s care just comes to me.
17. I like to come up with new ideas about how to assess the condition of my patients.
18. I like to incorporate new ideas into my nursing care.
19. There are some things I suddenly know to be true about some of my patients, but I am unable to support this with concrete data.
20. I am usually open to a patient’s family member’s feelings and suggestions about the patient.
21. Sometimes I act on a sudden knowledge about a patient to prevent a crisis from developing even when I can’t explain it.

nurses. The concept of self-reported levels of nursing proficiency was measured using Benner’s five levels of skill acquisition and development: (a) novice; (b) beginner; (c) competent; (d) proficient; (e) expert. Definitions for each of the five skill levels were developed using Benner’s (1982) work (see Table 2).
Table 2. Demographic Survey

- What is your age in years?
- What is your ethnicity?
  - Hispanic or Latino
  - Not Hispanic or Latino
- What is your race (please select all that apply)?
  - American Indian or Alaskan Native
  - Asian
  - Black or African American
  - Native Hawaiian or Other Pacific Islander
  - White
- What is your gender?
  - Male
  - Female
- What is your level of education (please select all that apply)?
  - Associates/diploma
  - BSN
  - BA/BS in nonnursing field
  - MSN
  - MA/MS in nonnursing field
  - DNP/PhD
- What is your current unit of employment?
  - 6 South
  - 6 North
  - 7 South
  - 7 North
  - 8 South
  - 8 North
  - 9 South/North
- Are you trained in critical care nursing within your current job (applies only to 9S/N and 7N nurses)? Critical care nursing is defined as training with ventilators and hemodynamic monitoring such as arterial lines and central venous pressure monitors.
  - No
  - Yes
  - N/A
- How many total years of clinical nursing experience do you have?
- What is the number of years worked on your current unit?
- Please assign yourself to one of Patricia Benner’s definitions of nursing proficiency that you feel best describes your nursing proficiency level (see below for definitions).
  - Level 1 Novice Nurse
  - Level 2 Advanced Beginner
  - Level 3 Competent
  - Level 4 Proficient
  - Level 5 Expert

- Level 1 Novice Nurse: “Beginners who because they have no experience with the situations in which they are expected to perform, must depend on rules to guide their actions. Following rules however, has limits. No rule can tell novices which tasks are most relevant in real situations nor when to make exceptions.”

- Level 2 Advanced Beginner: “One who had coped with enough real situations to note (or to have them pointed out by a mentor) the recurrent meaningful aspects of situations. An advanced beginner needs help setting priorities since she/he operates on general guidelines and is only beginning to perceive recurrent meaningful patterns. The advanced beginner cannot reliably sort out what is most important in complex situations.”

- Level 3 Competent: “Typically the competent nurse has been in practice two to three years. The nurse can rely on long-range and plans to determine which aspects of a situation are important and which can be ignored. The competent nurse lacks the speed and flexibility of the nurse who has reached proficient level, but competence is characterized by a feeling of mastery and the ability to cope with and manage many contingencies of clinical nursing.”

- Level 4 Proficient: “One who perceives situations as wholes, rather than in terms of aspect. With holistic understanding, decision making is less labored since the nurse has a perspective on which of the many attributes and aspects present are the important ones. The proficient performer considers fewer options and homes in on an accurate region of the problem.”

- Level 5 Expert: The nurse who no longer relies on an analytical principle (rule, guideline, maxim) to connect an understanding of the situation to an appropriate action. The expert nurse, with an enormous background of experience, has an intuitive grasp on the situation and zeros in on the accurate region of the problem without wasteful consideration of a large range of unfruitful possibilities.
Population/Sample

The population studied included practicing nurses in an acute care setting. Acute care settings vary in degrees of care provided; however, most acute care settings provide basic nursing care described as medical–surgical and have an intensive care unit available, if needed. The aim of this research was to sample nurses found in most acute care settings. Thus, nursing units with specific patient populations or nurses not caring for the patient in a traditional sense, such as operating room or emergency department, were excluded.

This study took into consideration Benner’s levels of nursing proficiency. In order to fully assess all levels of nursing proficiency, units ranging from medical–surgical to critical care were included. Nurses from the following units were invited to participate in the study: medical–surgical, oncology, orthopedics, neurology, step-down telemetry, progressive care, cardiac intensive care, and critical care.

Units of nursing care were categorized based on length of orientation and required education. It was thought that perhaps nurses with more required education and length of orientation for a particular unit might score higher on the use of intuition. In this medical center, nurses from any unit are free to explore additional education and certification, but for the purpose of this research, the unit requirements were used to form categorical groups. The sample number for each category had the potential to change based on unavoidable health care employment issues such as, turnover and new employees.

Category 1 \((n = 211)\) was composed of nurses working on medical–surgical units, the orthopedic neurology unit, and the oncology unit. All of these units require less than 8 weeks for new employee orientation with the only required certification being Basic Life Support. Category 2 \((n = 98)\) was composed of nurses working on step-down telemetry and progressive care units. These units require 10 to 12 weeks of new employee orientation, Basic Life Support, and Advanced Cardiac Life Support certification. Essentials of Critical Care Orientation and Basic EKG, both accredited through the American Association of Critical Care Nurses, are required for new graduate nurses on these units. Category 3 \((n = 105)\) was composed of nurses from the critical care and cardiac intensive care units. These nurses have the same requirements as nurses from Category 2; however, they are trained to care for the unstable patient requiring invasive ventilation and hemodynamic support, such as arterial lines, intraaortic balloon pumps, and central venous pressure monitors.

Instruments

The instrument of choice for this research was the RIJS (see Table 1). Permission was granted by the developer to use the scale for the current research (L. Rew, personal communication, January 2016). A demographic questionnaire was also used. Rew (2000) originally developed a 50-item scale, which was reduced to 28 items based on Phase 1 panel responses. The 28-item scale was reviewed by a second panel yielding a content validity index of 0.96; therefore, all 28 items were kept for Phase 2 of the research. In Phase 2, the survey was mailed to 250 practicing psychiatric nurses with a response rate of 47%. Based on data analysis, specifically low factor loadings, seven factors were dropped creating a 21-item scale (Rew, 2000). In Phase 3, Rew (2000) distributed the scale to 112 practicing nurses of various clinical backgrounds with a response rate of 67%. Subjects in Phase 3 generated a Cronbach’s alpha coefficient of internal consistency of .91 (Rew, 2000). Rew (2000) suggested that the 21-item scale be tested with nurses across various backgrounds, educational levels, work experience, and clinical expertise. A Likert-type scale is used with 7 points: 1 = strongly disagree; 2 = disagree; 3 = slightly disagree; 4 = uncertain; 5 = slightly agree; 6 = agree; 7 = strongly agree. The values for the RIJS range from 21 to 147. Based on the psychometric testing of the RIJS and expert opinion, the 21-item RIJS was used for this research.

Procedure

Potential participants were contacted through their institutional e-mail address, which is required by all employees. The first author attended unit-based council meetings and posted informational flyers on participating units to promote knowledge of the research study. The e-mail sent to potential participants used the link to the RIJS tool and demographic questionnaire. Participation was intended to take no longer than 10 to 15 minutes. Two e-mails were sent out approximately 3 weeks apart in May, 2016.

Participants were asked to perform a self-rating of their own proficiency level according to Benner’s (1982) definitions. Definitions were provided to
ensure the participant was familiar with the levels of proficiency (see Table 2). Participants were also given a demographic questionnaire. The demographic questions included age, gender, ethnicity, level of nursing education, years of nursing experience, unit of employment, and if the participants were trained in critical care nursing within their current job description (see Table 2). Critical care nursing was defined as nurses trained to care for the unstable patient requiring invasive ventilation and hemodynamic monitoring, such as arterial lines and central venous pressure monitors. Participants had a nonapplicable option when answering this question as critical care nurses at the study site only work on two units. The Internet server SurveyMonkey™ was the source of delivery for the questionnaires.

Prior to data collection, institutional review board approvals at both the college and medical center were obtained. Participation was strictly anonymous, voluntary, and with minimal risk to the participant. The participants did not provide any identifying information such as name, birthdate, or employee identification number. The participant’s employment or status within the medical center was not affected by participation or lack thereof in this study. The e-mail included a cover letter explaining the study. Completion of the online questionnaires constituted implied informed consent.

Data Analysis

The preliminary data analysis began with the examination of descriptive statistics (mean, standard deviation, frequencies, and range) to clean the data set. There were no outliers in the data set to be transformed. Level of significance was set at \( p < .05 \). SPSS version 20.0 was used for data analysis.

Pearson’s \( r \) correlation was used to examine correlations between the various variables in the first three questions, self-reported levels of nursing proficiency, use of intuition, and years of clinical experience. Analysis of variance was used to examine differences among the categories of nurses.

Results

Sample Characteristics

A total of 103 nurses responded to the survey; however, 99 completed the RIJS. Of the 99 nurses who completed the entire survey, 92 were female (92.9%), 98 (99.0%) reported being White, non-Hispanic, and the mean age was 36.2 (SD = 11.1) years. Eighty-seven (87.9%) nurses reported having a BSN or higher degree. Twenty-five (25.3%) of the nurses reported being trained in critical care. The mean number of years on the current unit at the time of the survey was 4.2 (SD = 2.3) years (see Table 3).

Reliability of the Rew Intuitive Judgment Scale

For the 21-item RIJS used in this study (see Table 1), Cronbach’s alpha coefficient was .756. Scores of the RIJS ranged from a low of 85 to a high of 133. The mean RIJS score was 111.48, median was 111.0, and the mode was 109. The skewness of the dependent variable, the RIJS Scale, was fairly symmetrical (−.154; Plichta & Kelvin, 2013); thus, parametric statistics were used to analyze the data. Four nurses did not complete 11 of the RIJS items; thus, the median value was substituted for the particular item.

Research Questions

Data analysis indicated a low positive statistically significant relationship between self-reported levels of nurse proficiency and the use of intuition to make clinical nursing judgments (\( r = .248, p = .013 \)). Higher levels of self-reported nurse proficiency (novice to expert) were related to higher scores on the RIJS.

Table 3. Demographic Characteristics of the Sample (N = 99)

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>n (%)</th>
</tr>
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<tbody>
<tr>
<td>Education</td>
<td></td>
</tr>
<tr>
<td>Associate/diploma</td>
<td>12 (11.7)</td>
</tr>
<tr>
<td>BSN</td>
<td>66 (66.7)</td>
</tr>
<tr>
<td>BA/BS</td>
<td>2 (2.0)</td>
</tr>
<tr>
<td>MSN</td>
<td>4 (4.0)</td>
</tr>
<tr>
<td>MA/MS</td>
<td>13 (13.1)</td>
</tr>
<tr>
<td>DNP/PhD</td>
<td>1 (1.0)</td>
</tr>
<tr>
<td>BSN + MSN</td>
<td>1 (1.0)</td>
</tr>
<tr>
<td>Trained in critical care, yes</td>
<td>25 (25.3)</td>
</tr>
<tr>
<td><strong>M (SD)</strong></td>
<td></td>
</tr>
<tr>
<td>Years as a nurse</td>
<td>9.9 (10.8)</td>
</tr>
<tr>
<td>Years on unit</td>
<td>4.2 (2.3)</td>
</tr>
</tbody>
</table>
The Pearson correlation suggested a positive moderate statistically significant relationship between self-reported levels of nursing proficiency and the nurse reported years of clinical experience \( (r = .562, p = .001) \). The more years of clinical experience, the higher the level of self-reported nursing proficiency (novice to expert).

The Pearson correlation suggested a low positive statistically significant relationship between reported years of clinical experience and the use of intuition to make clinical nursing judgments \( (r = .286, p = .807) \). More years of clinical experience were related to higher scores on the RIJS.

One-way analysis of variance was used to determine differences in RIJS scores among the three categories of nurses (Category 1 = medical–surgical nurses, \( n = 42 \); Category 2 = step-down and progressive nurses, \( n = 32 \); Category 3 = critical care nurses, \( n = 24 \)). The findings suggested that there was no statistically significant difference in the use of intuition among the three categories of nurses \( (F = .216, df = 2, p = .807) \). RIJS scores for the three categories of nurses were similar: Category 1: \( M = 111.83 \) (SD = 8.55); Category 2: \( M = 111.65 \) (SD = 11.18); Category 3: \( M = 110.16 \) (SD = 12.05).

**Discussion**

The purpose of this study was to examine the relationships and differences in the use of intuition among practicing nurses from various clinical units at a medical center in the Midwest. Clinical units in this study referred to the type of care the patient received; therefore, data were collected in terms of which unit nurses worked on and if they had training in critical care nursing. Nurses working on units identified as providing critical or intensive patient care (Category 3) did not have significantly higher levels of intuition than the nurses working on step-down and progressive care units (Category 2), or medical–surgical units, orthopedic neurology unit, and the oncology unit (Category 1).

Nurses in critical care units receive the most training and education, with step-down nurses following, and medical–surgical nurses receiving basic training and education when employed on a specific unit in this Midwest medical center. The use of intuition in critical thinking has been examined across groups of nurses, but most of this research is specific to a single group of nurses and not comparative. Some studies explored intuition across a wide variety of nurses but did not aggregate data to reflect differences in intuition based on the nurse’s skill level. Cork (2014) found intuition was significant when predicting the severity of injury in trauma patients, but the study was limited to nurses in one emergency department. Rew (1990) dissected intuition in critical care nurses but kept her research specific to that specialty nurse. King and Clark (2002) observed intuition levels in nurses working in specialized surgical wards and intensive care units finding that nurses of all experience levels use intuition in their practice. Michael et al. (2005) assessed intuition levels among nurses working in emergency departments, intensive care units, and surgical clinics, but their sample was composed from two state hospitals possibly requiring different educational and employment requirements. Consistent with the current research, Michael et al. (2005) did not find any significance in the difference of intuition levels among the groups of nurses they studied.

The value in comparing nurses across different clinical areas is that the patient often makes a vertical progression throughout the hospital course. The current research includes the medical–surgical nurse as a clinical area because the patient often encounters some level of care on the medical–surgical unit while in the hospital. Research regarding intuition specific to the medical–surgical nurse is limited. Minick and Harvey (2003) did identify “knowing something that is not expected” as a subjective thought process for the medical–surgical nurse, but did not specifically use the concept of intuition. An acutely ill patient can be admitted to the intensive care unit, stabilized, and transferred to a step-down unit for maintenance care. The step-down patient can be discharged or transferred to a lower level of acuity for additional nursing care. Furthermore, patients admitted to a medical–surgical unit can experience a decline in health status making surveillance and critical thinking of the medical–surgical nurse imperative to the patient outcome. For the patient to receive standardized nursing care with positive outcomes, nurses should all be providing consistent and effective care with respect to their specialities. Nurse educators and staff development professionals can control educational requirements for nursing staff; but the nurses’ intuition is an inconsistent variable. The benefit of nurses practicing at similar intuition levels across
various levels of care suggests consistent and stand-
ardized care for the patient.

Findings from this study suggest that nurses practicing at higher self-reported proficiency levels, novice to expert, scored higher on the RIJS. The correlation was low and positive but supports Benner's foundational theory. Consistent with the current research is Polge's (1995) study in which she found as levels of nursing proficiency increased, participants scored higher on the RIJS. In Polge's (1995) study, none of the participants identified as novice nurses, while in the current research, eight participants self-reported as novice nurses. The value of including novice nurses in the study is that novice nurses are at the bedside and are often in high acuity scenarios. Knowing ways of information processing for the novice nurse will aid in the development of his or her critical-thinking skills. A consistent result throughout decades of research continues to sup-
port Benner's theory, enhancing the theory's use in the present nursing community.

Further study findings validated the individual nurse's understanding of Benner's theory; that is, more years of clinical experience were associated with higher self-reported levels of nursing profi-
ciency. Moreover, results suggested that more years of clinical experience were related to higher scores on the RIJS. This result does not support or chal-
lenge Benner's theory, but rather supports the develop-
ment of intuition as the nurse progresses through his or her career. Benner supports the use of intu-
tion in the expert nurse but does not explore the use of intuition in nurses from lower proficiency levels. Previous research has found that not just expert nurses use intuition (Cork, 2014; King & Clark, 2002; Ruth-Sahd & Hendy 2004). The current research supports the use of intuition across Benner's proficiency levels.

Clinical experience is often associated with intu-
tion but knowing what other factors predict intuitive thinking can help the nurse identify personal qualities influencing intuition in his or her practice. Ruth-Sahd and Hendy (2004) found that in a group of novice nurses, older age, more hospitalizations, and more social and family support were associated with using intuition more often as a guide in patient care. The current research further supports the con-
cept that intuition is present among all levels of nurses. The inexperienced nurse should not be taught to make clinical decisions based on intuition, but rather use that intuitive feeling to further assess the situation. Traynor, Boland, and Buus (2010, p. 1587) found nurses use intuition or instinct as an “initial part of rational and systematic decision making and as informed by clinical expertise.” The nurse of a lower proficiency level may not be able to make decisions based on his or her intuition, but can sense something is wrong and use the nursing pro-
cess to further investigate.

Benner and Tanner (1987, p. 30) describes the expert nurse's use of intuition as “understanding without rationale, based on background understand-
ing and skilled clinical observation.” Background knowledge and skilled clinical observation come with experience in one's clinical area. In this study, 52 nurses identified themselves as expert nurses; however, the mean number of years on the nurse's specific unit was 4. This might probe one to ask, “Is 4 years enough time to develop expert knowledge and intuitive thinking in a specific clinical area?” Health care is an evolutionary environment with changes on a daily basis. The expert nurse may find himself or herself in a new clinical environment after years of specific experience. Knowing that nurses of all proficiency levels and from various clinical units use intuitive thinking should only strengthen the concept of teamwork and respect among nurses, enhancing the fluidity in patient care to achieve positive outcomes.

**Limitations and Further Research**

Limitations in this study include the small sam-
plesize of 99, considering 400 plus nurses were invited to participate. Nurses took the survey on their own time; therefore, the study environment was not controlled. The standard deviations were high in this study giving a wide range to the study results. This research was powered by SurveyMonkey; therefore, there was possibility of technological error.

Intuition has been established as a source of nursing knowledge and useful in the process of critical thinking. Past and current research also sup-
ports the intuitive thought process from the novice to expert nurse. More research is needed in how to teach intuition and reference how the intuitive thought process is used in decision making. Nursing students should be taught the nursing process as the first line of thought in critical thinking but also be pro-
vided with different pathways of how the experienced
or expert nurse came to his or her decision. After undertaking a systematic review aimed at incorporating intuition into nursing education, Hassani, Abdi, and Jalali (2016) determined research must move beyond a descriptive means and focus on trials or samples to truly make an impact on intuition in nursing education. The current research focused on critical care, step-down, and medical–surgical nurses to mimic the patient’s general hospital course. Comparing emergency room nurses with the above groups of nurses would also be beneficial since emergency departments are often the first line of care for many hospitalized patients. Study of nurses who care for patients with mental health illnesses would also be of interest.

This research was limited to one health care network. Intuition levels should be assessed between various health care networks within the same community to determine if differences occur. Ruth-Sahd (2004) studied what influenced the use of intuition among novice nurses. This research should be expanded to determine what else influences intuition in novice nurses, but also nurses of higher proficiency levels, especially since the use of intuition increases with the nurse’s proficiency level, as supported by past research and this study. Studying levels of intuition among educators and students may also provide insight determining if highly intuitive educators produce nurses more likely to use intuitive thinking.

In conclusion, involving Benner’s research within the current study was logical and consistent with previous research. Benner provides the most foundational and solid research on the use of intuition within nursing practice. The decision to categorize nurses according to care provided was based on the inconsistencies in past research and also to reflect the patient stay within the hospital setting. Research can be focused on statistical significant results, but sometimes, the insignificance is truly what benefits patient care. In this study, the RIJS result was insignificant among all categories of nurses within the different clinical units surveyed. This finding suggests that patients are receiving similar, consistent care, with respect to intuition, as they progress through the hospital stay at this medical center. Health care networks spend time and funds in developing order sets, protocols, and clinical pathways in an effort to standardize patient care. Standardized care is one way to positively affect patient outcomes; however, health care profession-als must consider variable factors, such as the nurse’s critical thought process and intuition, to ensure a comprehensive effort is made in achieving positive patient outcomes.

References


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